REPORT UAG-92

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# for
# Solar-Terrestrial Physics

# WORLD DATA CENTER B2

# WORLD DATA CENTERS C1 (GEOMAGNETISM)
# WORLD DATA CENTERS C2 (GEOMAGNETISM)

# COMBINED INTERNATIONAL CATALOG OF GEOMAGNETIC DATA

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July 1985

Published by:

U.S. NATIONAL GEOPHYSICAL DATA CENTER

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World Data Centers conduct international exchange of geophysical observations in accordance with the principles set forth by the International Council of Scientific Unions. WDC-A is established in the United States under the auspices of the National Academy of Sciences. Communications regarding data interchange matters in general and World Data Center A as a whole should be addressed to World Data Center A, Coordination Office (see address above). Inquiries and communications concerning data in specific disciplines should be addressed to the appropriate subcenter listed above.

# WORLD DATA CENTER A
# for
# Solar-Terrestrial Physics

# WORLD DATA CENTER B2

# WORLD DATA CENTERS C1 (GEOMAGNETISM)

# WORLD DATA CENTERS C2 (GEOMAGNETISM)

## REPORT UAG-92

# COMBINED INTERNATIONAL CATALOG OF GEOMAGNETIC DATA


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TABLE OF CONTENTS


| Section | Topic | Page |
|---|---|---|
| | Preface | iv |
| I. | Introduction | 1 |
| II. | Lists of Observatories, Codes and Coordinates | 4 |
| | Table 1. Alternate Observatory Name List | 5 |
| | Table 2. Replacement Observatories | 6 |
| | Table 3. Alphabetical Listing | 7 |
| | Table 4. Listing by Increasing Dipole Geomagnetic Co-lat | 22 |
| | Table 5. Listing of First and Latest Annual values | 37 |
| | Table 6. Log of observatory operation 1810-1899 | 46 |
| | Table 7. Log of observatory operation 1900-present | 50 |
| III. | Map of Magnetic Observatories | 60 |
| IV. | Catalog of Geomagnetic Data Held at the WDC's | 63 |
| | Table 8A. Summary of Observatory names and codes | 63 |
| | Table 8B. Listing of Geomagnetic Data | 65 |
| V. | Catalog of High-Resolution Geomagnetic Digital Data | 214 |
| | Table 9. Listing of 10-second data at WDC-A | 215 |
| VI. | Geomagnetic Indices | 217 |
| VII. | Computer Software | 219 |
| | Table 10. Catalog Update Program | 222 |
| | Table 11. Catalog Listing Program | 241 |
| | Table 12. Hourly Value Gamma Program | 273 |
| | Table 13. Hourly Value Mapout Program | 282 |

# PREFACE

World Data Centers conduct international exchange of geophysical observations in accordance with the principles set forth by the International Council of Scientific Unions (ICSU). They were established in 1957 by the International Geophysical Year Committee (CSAGI) as part of the fundamental international planning for the IGY program to collect data from the numerous and widespread IGY observational programs and to make such data readily accessible to interested scientists and scholars for an indefinite period of time. WDC-A was established in the U.S.A.; WDC-B in the U.S.S.R.; and WDC-C, in Western Europe, Australia, and Japan. This new system for exchanging geophysical data was found to be very effective, and the operations of the World Data Centers were extended by ICSU on a continuing basis to other international programs; the WDC's were under the supervision of the Comite International de Geophysique (CIG) for the period 1960 to 1967 and are now supervised by the ICSU Panel on World Data Centres.

The current plans for continued international exchange of geophysical data through the World Data Centers are set forth in the "Fourth Consolidated Guide to International Data Exchange through the World Data Centres", issued by the ICSU Panel on World Data Centres, June 1979. These plans are broadly similar to those adopted under ICSU auspices for the IGY and IQSY. ICSU-sponsored exchange visits have taken place between WDC-A (Boulder) and WDC-B (Moscow) working staff for the overall purpose of improving data exchange between these centers. One goal was the creation of common formats for computer inventories and catalog publications. By joint agreement the first discipline for this effort was the collection of geomagnetic data. While this joint effort was developing, WDC-C2 for Geomagnetism (Kyoto) published a computer-based catalog of their geomagnetic holdings. A digital tape of this catalog was shared with WDC-A. After reformatting, this information was added to the joint catalog of holdings at WDC-A and WDC-B and the combined catalogs were published in Report UAG-86. This report, UAG-92, updates and supercedes UAG-86.

## Functions and Responsibilities of WDC's

The World Data Centers collect data and publications for the following disciplines: Glaciology; Meteorology; Oceanography; Rockets and Satellites; Solar-Terrestrial Physics disciplines (Solar and Interplanatary Phenomenia, Ionospheric Phenomena, Flare Associated Events and Geomagnetic Phenomena. Aurora, Cosmic Rays, Airglow); Solid-Earth Geophysics disciplines (Seismology, Tsunamis, Gravimetry, Earth Tides, Recent Movements of the Earth's Crust, Rotation of the Earth, Magnetic Measurements, Paleomagnetism and Archeomagnetism, Volocanology, Geothermics); and Marine Geology and Geophysics. In planning for the various scientific programs, decisions on data exchange were made by the scientific community through the international scientific unions and committees. In each discipline the specialists themselves determined the nature and form of data exchange, based on their needs as research workers. Thus the type and amount of data in the WDC's differ from discipline to discipline.

The objectives of establishing several World Data Centers for collecting observational data were: (1) to insure against loss of data by the catastrophic destruction of a single center, (2) to meet the geographical convenience of, and provide easy communication for, workers in different parts of the world. Each WDC is responsible for: (1) endeavoring to collect a complete set of data in the field or discipline for which it is responsible; (2) safekeeping of the incoming data; (3) correct copying and reproduction of data, maintaining adequate standards of clarity and durability; (4) supplying copies to other WDC's; (5) preparation of catalogs of all data in its charge; and (6) making data in the WDC's available to the scientific community. Operating expenses for the WDC's are met by the sponsoring national institution in each host country and by appropriate charges to users.

## World Data Center A

The U.S. National Academy of Sciences has overall responsibility for World Data Center A through the Geophysics Research Board and its Committee on Geophysical Data. WDC-A consists of a Coordination Office at the NAS and discipline centers at scientific institutions in various parts of the United States. The GRB periodically reviews the activities of WDC-A and has conducted several studies on the effectiveness of the WDC system. As a result of these reviews and studies some of the centers have been relocated so that they could more effectively serve the scientific community. The addresses of the WDC-A centers and Coordination Office are given inside the front cover. For some data bases the responsibility is not simply based on discipline but may also reflect whether the data are collected on an experimental basis or for synoptic monitoring purposes and differing responsibilities of the sponsoring host institutions. For example, there are very close connections between WDC-A for Solar-Terrestrial Physics and WDC-A for Rockets and Satellites, which exchange solar-terrestrial geophysical data; if it is more convenient, data or requests may be sent to one WDC-A center through another.

## SECTION I

### Introduction

In this catalog we have attempted to: (1) consolidate all the geomagnetic data from standard, rapid-run, and digital measurements known to exist at all of the World Data Centers having responsibility for geomagnetic data; (2) indicate years of geomagnetic observatory operation from 1810; (3) provide the observed or simulated absolute 1980 values for all listed observatories; (4) provide first and most recent annual values for all listed observatories; (5) provide a list of alternate observatory names, and (6) provide a digital section including catalog inventory formats, data base design and all associated software coding necessary to manage, update, and produce the tables published here.

The World Data Centers with geomagnetic data holdings are located in Bombay, Boulder, Copenhagen, Edinburgh, Kyoto, and Moscow. Their holdings include data recorded before the IGY (when the WDC system was established). These geomagnetic data are held in the form of microfilm, magnetic tapes, yearbooks, and bulletins. They are in a variety of formats including magnetograms (normal, storm, and rapid-run), hourly values, 2.5-minute, 1-minute, and 10-second values, and various derived indices for individual observatories and global networks. Data from about 500 observatory locations are referenced in this catalog.

Section II, beginning on page 4, lists all observatories with their international 3-letter code, geographic, and geomagnetic coordinates. They are given first in alphabetical order and then sorted according to increasing geomagnetic co-latitude (dipole co-latitude). Some observatories are called by more than one name and where alternate names are known, these also are listed in Section II.

Section III is a map showing the location of all observatories listed in Tables 8a and 8b of this catalog.

Section IV is the main listing of the catalog and begins on page 63. It details for each observatory the years and months for which the WDC's retain digital data, magnetograms, or K and Q indices or annual values for the site. This information is also available on a standard magnetic tape in a common format adopted jointly by WDC-A for STP and WDC-B2.

Section V lists stations, codes, and dates for which there are holdings of high resolution geomagnetic digital data. These data are relatively new at the WDC's, most having come into existence as part of the program of data acquisition for the International Magnetospheric Study (IMS), 1976-1979. In general, where data exist with high time resolution there are also corresponding data averaged over less frequent sample times, e.g. 10-sec data also exist as 1-min and hourly averages. Often, summary values are plotted by computer on microfilm to provide a convenient means for visual examination of the high resolution data.

Section VI gives details about the availability of the principal derived magnetic activity indices other than the local K index for each observatory. Indices of geomagnetic activity may characterize the range and frequency of field variations at a single recording site or as measured by a physically significant array of observatories.

Section VII lists the actual software code prepared at WDC-A and WDC-B2 and used to manage this geomagnetic inventory and produce the various listings published here. The code is written in standard Fortran-77 and should operate on many different computer systems.

These geomagnetic data are available to users without restriction. Some WDC's must either recover their cost of data preparation or of reproduction. Inquiries and requests for data should be addressed to the nearest appropriate World Data Center. Their addresses are the following:

World Data Center-A for
Solar-Terrestrial Physics
NOAA/NGDC E/GC2
325 Broadway
Boulder, Colorado 80303
USA

World Data Center B2
Soviet Geophysical Committee
Academy of Sciences of the USSR
Moscow 117 296
USSR

World Data Center C1 (Geomagnetism)
Danish Meteorological Institute
Division of Geophysics
Lyngbyvej 100
DK-2100 Copenhagen
Denmark

World Digital Data Center-C1
for Geomagnetism
British Geological Survey
Geomagnetism Research Group
Murchison House
West Mains Road
Edinburgh EH9 3LA, Scotland

World Data Center C2
for Geomagnetism
Faculty of Sciences
Kyoto University
Kyoto 606
Japan

World Digital Data Center C2
for Geomagnetism
Indian Institute of Geomagnetism
Colaba
Bombay 400005, India

While data copies are available by mail, working visits to the Data Centers are also encouraged. Such visits enable the user to browse through the archives and to have access to all the facilities of the Centers, and it is usually possible to minimize copying costs. Copying machines, microfilm readers and reader-printers, and calculators are available. Special arrangements may be made for the use of computers and other equipment. Arrangements for visits should be made in advance with the proposed World Data Center.

## World Data Center A (Boulder)

Activities of WDC-A are coordinated by the U.S. National Academy of Sciences. WDC-A for STP holds the archive of magnetiograms and digital geomagnetic data while WDC-A for Solid Earth is responsible for annual means and field models. Both are operated by the U.S. National Geophysical Data Center, NOAA.

Data received by WDC-A's (see inside front cover) are made available to the scientific community in a variety of ways: (1) in published reports containing data and results of experiments; (2) in digital form on magnetic tapes or discs; and (3) in tables, maps and analog records on either film or paper. WDC-A publications are exchanged with other Centers and data suppliers, and are available on a subscription basis to anyone. Observations in other formats are available upon request either in exchange for data of a comparable kind and quantity or for the cost of accessing and reproducing the measurements.

## World Data Center B2 (Moscow)

The Academy of Sciences of the U.S.S.R. has overall responsibility for World Data Center B through the Soviet Geophysical Committee. WDC-B consists of two discipline centers: WDC-B1 (Glaciology, Meteorology and Oceanography) and WDC-B2 (Solar-Terrestrial Physics and Solid-Earth Geophysics). The addresses of the WDC-B centers are given above. The Soviet Geophysical Committee periodically reviews the activities of WDC-B and has conducted several studies on the effectiveness of the WDC system.

Data received by WDC-B are made available to the scientific community in the same ways as from the WDC-A centers--for the cost of accessing and reproducing the observational data.

## World Data Center C1 (Copenhagen)

The Danish National IUGG Committee and the Danish Meteorological Institute are responsible for the administration of the WDC-C1 for Geomagnetism. The centre is part of the geomagnetic section of the Division of Geophysics. In the present catalogue normal-run magnetograms and geomagnetic hourly values are included. In addition the data collected in the center cover rapid-run magnetograms, tellurigrams, earth current, geomagnetic indices and a list of special events. Most of the data are held in the form of microfilm and microfiche, and some are publications such as annual reports.

World Digital Data Center C1 (Edinburgh)

WDDC-C1 for Geomagnetism was established in 1966 in response to an IAGA resolution which recommended the creation of several digital data centres to satisfy the growing demand for digital data. The principal type of digital data held by WDDC-C1 are: (1) Annual, hourly and 2.5-min values from the worldwide network of geomagnetic observatories; (2) Marine, aerial satellite and repeat station magnetic survey data; (3) U.K. observatory data: Annual, hourly and minute values; (4) Array magnetometer data covering both IGY and IMS epochs.

WDDC-C1 is operated by the Geomagnetism Research Group of the British Geological Survey, which in turn is a component body of the Natural Environment Research Council.

World Data Center C2 (Kyoto)

The World Data Center C2 for Geomagnetism is operated by the Data Analysis Center for Geomagnetism and Space Magnetism, Faculty of Science, Kyoto University. Data requests should be sent to the address on page 2. The following is a list of the WDC-C2's in Japan:

WDC-C2 for Airglow (Tokyo University)
WDC-C2 for Aurora (National Institute of Polar Research)
WDC-C2 for Solar Radio Emission (Nagoya University)
WDC-C2 for Solar-Terrestrial Activity (Institute for Space and Aeronautical Sciences)
WDC-C2 for Ionosphere (Radio Research Laboratories)
WDC-C2 for Nuclear Radiation (Japan Meteorological Agency)

World Digital Data Center C2 (Bombay)

The overall responsibility of the World Digital Data Centre C2 for Geomagnetism is with Director, Indian Institute of Geomagnetism, Colaba, Bombay 400005 India. The data received by this centre are made available to the scientific community in the same way as other WDC's at very nominal cost for reproducing the observations.

Catalog of Data

This catalog, UAG-92, covers the data of standard, rapid run and digital measurements, subdiscipin D.1 in the ICSU Fourth Consolidated Guide to International Data Exchange through the World Data Centres, June 1979 associated with the ground-based monitoring of geomagnetic phenomena by standard and rapid-run measurements that have been received by WDC-A, WDC-B2 and WDC-C2 in both analog and digital form. This publication supersedes all previous catalogs of these data published by WDC-A, WDC-B, WDC-C1's and WDC-C2's.

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## SECTION II

### Lists of Observatories, Codes, Coordinates, Annual Values and Years of Operation

Seven separate lists of geomagnetic observatories are presented in this section as described below. Tables 3 and 4 give all observatories ordered alphabetically and by geomagnetic co-latitude, respectively.

The listed observatories are those for which annual data are held in at least one of the WDC's. Their names, international 3-letter codes, and geographic coordinates are consistent with those given in the IAGA News of December 1979. We have corrected or updated entries where appropriate. Corrections to the information published here should be communicated to any appropriate World Data Center. Proposed new entries or other changes to this list should be approved by the appropriate IAGA Working Group or their designated agent.

Magnetic coordinates were calculated from the geographic coordinates for each observatory using the dipole, Gustaffsson, and Tsyganenko models. The geomagnetic dipole coordinates, co-latitude 0' and each longitude 0', were defined by Schmidt (1895) in "Mitteilungen uber eine neue Berechnung des Erdmagnetischen Potentials". For these dipole coordinate calculations, geographic coordinates used for the North Geomagnetic Pole were 11.32° co-latitude and 289.59° East longitude.

Gustaffsson's corrected geomagnetic coordinates were computed according to the method described in "A Revised Corrected Geomagnetic Coordinate System," Ark. Geophysics, 5, 595-617, and also given in Kiruna Geophysical Observatory Report no. 694 (April 1969). These coordinates are given for all observatories with geographic latitudes greater than 2° to 16°, depending on longitude. They are not defined for sites within a latitude band of varying width near the geomagnetic equator, and observatories in this region have no entry in this column in Tables 3 and 4.

Tsyganenko's corrected geomagnetic coordinates were computed according to the method described in Tsyganenko, N.A., "Subroutines and Tables for the Geomagnetic Field Computations," Materials for the WDC-B2, Moscow, 1979 and in "Numerical Models of Quiet and Distrubed Geomagnetic Field in the Cislunar Part of the Magnetosphere," Annales de Geophysique, 37, 381-394, 1981. These coordinates are not given for all observatories within +30° to -30° geographic latitudes and they have no entry in this column in Tables 3 and 4.

IGRF calculated annual mean values for 1980 were included in Tables 3 and 4 were no annual means for 1980 were available. IGRF calculated values are marked by an asterisk (*).

Table 1. Alphabetically Sorted Alternate Name List. Since some observatories are more commonly known by a label other than the one used in this catalog, we tabulate here their alternate name or names.

Table 2. Alphabetically Sorted List of Replacement Observatories. Here we tabulate stations that began near the site of a closed facility with perhaps a period of concurrent operation. We consider such sites as "replacement observatories".

Table 3. Alphabetical listing of all observatories for which data are held at WDC-A for STP, WDC-B2, WDC-C1's, WDC-C2's.

Table 4. Observatory listing sorted by increasing dipole geomagnetic co-latitude.

Table 5. Alphabetical listing of the earliest and latest complete annual values from each observatory.

Table 6. Alphabetical listing giving a complete log of years of operation for each observatory from 1810 - 1899.

Table 7. Alphabetical listing giving a complete log of year of operation for each observatory from 1900 - present.

Table 1 Alternate/Replacement Observatories

| Other Name | Observatory Names used in this catalog | Other Name | Observatory Names in this catalog |
|---|---|---|---|
| Amsterdam Island | Martin de Vivies | N Stekoliniy | Magadan |
| Amundsen Scott | South Pole | Nida | Nyda |
| Arctica I (NP-6) | North Pole 6 | Ny-Alesund | New Aalesund |
| Arctica II(NP-7) | North Pole 7 | Paratunka | Petropavlovsk |
| Arctica (NP-8) | North Pole 8 | Patrony | Irkutsk |
| Arctica (NP-10) | North Pole 10 | Peking | Beijing |
| Arequipa | Characato | Pleshenitzi | Minsk |
| Athens | Pendeli | Podkamennaya Tunguska | P. Tunguska |
| Azores | Sao Miguel | Point Barrow | Barrow |
| Baudouin | Roi Baudouin | Puerto Rico | San Juan |
| Bereznyaki | Karaganda | Pruhonice | Prague |
| Bjornoya | Bear Island | Reykjavik | Leirvogur |
| Centro Geoficiso | Havana | She-shan | Sheshan |
| Chelyuskin | Cape Chelyuskin | Sanae Station | Sanae |
| Christchurch | Amberley | Shanghai | Sheshan |
| Colaba | Alibag | Syowa Base | Syowa Station |
| Crozet | Port Alfred | Stepanovka | Odessa |
| Dehra Dun | Sabhawala | Stekoliniy | Magadan |
| Dikson | Dixon Island | St. Petersburg | Leningrad |
| Druzhnaya | Heiss Island | Tevris | Tevriz |
| Dusheti | Tbilisi | Tahiti | Pamatai |
| Dymer | Kiev | Tenerife | Canarias |
| Fanning | Fanning Island | Thule/Camp Tuto | Thule AFB |
| Faraday | Argentine Islands | Thule/Qanaq | Thule |
| Genova | Monte Capellino | Thule I | Thule |
| Goose Bay | Melville AFB | Thule II | Thule |
| Gornotayezhnaya | Vladivostok | Tikhaya Bay | Heiss Bay |
| Hawaii | Honolulu | Tiksi Bay | Tixie Bay |
| Hachijo(Hachiyojima) | Hatizyo | Tortosa | Ebro |
| Hallett | Cape Hallett | Tunguska | P. Tunguska |
| Isla de Pascua | Easter Island | Uelen | Cape Wellen |
| Kamchatka | Petropavlovsk | Ussurisk | Vladivostok |
| Karavia | Elizabethville | Vannovskaya | Ashkhabad |
| Kazalinskaya | Novokazalinskaya | Voyeykovo | Leningrad |
| Kerguelen | Port-aux-Francais | V. Dubrovoa | Sverdlovsk |
| Kinshasa-Binza | Binza | Vyssokaya Dubrava | Sverdlovsk |
| Kleine Karmakul | Maliye Karmakuly | Voroshilov | Vladivostok |
| Klyuchi | Novosibirsk | Warsawa | Swider |
| Krasnaya Pakhra | Moscow | White Shell | Whiteshell |
| Las Mesas | Canarias | Wien Auhof | Wien-Kobenzl |
| Lazarev | Novolazarevskaya | Yangi-Bazar | Tashkent |
| Leopoldville | Binza | Zaymishche | Kazan |
| Lourenzo Marquez | Maputo | Zo-Se | Sheshan |
| Luanda Belas | Luanda | Zuy | Irkutsk |
| Loparskaye | Murmansk | | |

Table 2

## REPLACEMENT OBSERVATORIES

| MOST RECENT OBSERVATORY NAME | EARLIER OBSERVATORY NAME |
|---|---|
| Amatsia | Modiim, previously Nitsanim |
| Alibag | Colaba |
| Brorfelde | Rude Skov, previously Copenhagen |
| Castellaccio | Pola |
| Chambon-la-Foret | Val Joyeux |
| Dourbes | Uccle |
| Dumont d'Urville | Terre Adelie |
| Elizabethville | Karavia |
| Eskdalemuir | Kew |
| Fredericksburg | Cheltenham |
| Gnangara | Watheroo |
| Hartland | Abinger, previously Greenwich |
| Hatizyo | Hachijo |
| Hatizyo | Hatijo |
| Hermanus | Cape Town |
| Heiss Island | Tikhaya Bay |
| Kakioka | Tokyo |
| Lauder | Amberley, previously Christchurch |
| Misallat | Helwan |
| Muntinlupa | Antipolo, previously Manila |
| Niemegk | Seddin, previously Potsdam |
| Ottawa | Agincourt, previously Toronto |
| Pamatai | Tahiti |
| Patacamaya | La Paz |
| Plaisance | Mauritius |
| Roburent | Monte Capellino |
| Sabhawala | Dehra Dun |
| Sanae | Norway Station |
| San Pablo | Toledo |
| San Juan | Vieques |
| Tangerang | Kuyper, previously Batavia |
| Tihany | Budakeszi |
| Tilaron | Costa Rica |
| Vassouras | Rio de Janeiro |
| Wingst | Wilhelmshaven |
| Witteveen | De Bilt |

TABLE 3

# GEOMAGNETIC OBSERVATORY TABLE

FOR
1 9 8 0

(SEQUENCED BY OBSERVATORY NAME)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| ABINGER | ABN | 51.19 | 359.61 | 38.81 | 36.30 | 84.46 | 42.10 | 79.20 | 42.11 | 79.18 | -6.05 | 19024 | 43811 | 18918 | -2005* |
| ABISKO | ABK | 68.36 | 18.82 | 21.64 | 24.17 | 115.70 | 24.96 | 103.32 | 24.96 | 103.31 | 2.74 | 11798 | 51070 | 11784 | 566 |
| ADAK | ADA | 51.87 | 183.36 | 38.13 | 42.50 | 241.36 | 43.17 | 244.88 | 43.74 | 245.00 | 8.77 | 21897 | 42676 | 21641 | 3339* |
| ADDIS ABABA | AAE | 9.03 | 38.77 | 80.97 | 84.83 | 110.50 | 90.96 | 109.98 | | | -.58 | 36075 | 407 | 36073 | -367 |
| AGINCOURT | AGN | 43.78 | 280.73 | 46.22 | 35.07 | 348.84 | 34.17 | 353.36 | 34.12 | 353.35 | -9.27 | 16906 | 55313 | 16685 | -2723* |
| ALERT | ALE | 82.50 | 297.50 | 7.50 | 4.03 | 165.16 | 3.30 | 115.03 | 3.21 | 117.77 | -76.93 | 3669 | 55887 | 829 | -3574 |
| ALIBAG | ABG | 18.64 | 72.87 | 71.36 | 80.56 | 144.94 | 78.68 | 144.64 | | | -.77 | 38282 | 17576 | 38278 | -518 |
| ALMA ATA | AAA | 43.25 | 76.92 | 46.75 | 56.53 | 151.87 | 52.03 | 148.71 | 52.02 | 148.70 | 4.47 | 25416 | 47923 | 25339 | 1982 |
| ALMERIA | ALM | 36.85 | 357.54 | 53.15 | 49.69 | 76.58 | 60.58 | 73.76 | 60.66 | 73.72 | -4.93 | 26689 | 33367 | 26590 | -2294 |
| AMATSIA | AMT | 31.55 | 34.92 | 58.45 | 62.04 | 111.48 | 65.74 | 106.28 | 65.71 | 106.22 | 2.56 | 30447 | 31765 | 30417 | 1362 |
| AMBERLEY | AML | -43.15 | 172.72 | 133.15 | 137.33 | 253.79 | 139.83 | 255.90 | 139.87 | 255.92 | 22.39 | 21312 | -54641 | 19705 | 8118* |
| AMDERMA | AMD | 69.47 | 61.42 | 20.53 | 29.27 | 147.68 | 25.54 | 138.05 | 25.55 | 137.94 | 23.34 | 9766 | 55773 | 8967 | 3869* |
| ANCHORAGE | AMU | 61.24 | 210.13 | 28.76 | 28.75 | 259.73 | 29.25 | 262.11 | 29.26 | 262.06 | 25.64 | 15248 | 53429 | 13747 | 6598* |
| ANDREWS AFB | AWS | 38.82 | 283.13 | 51.18 | 39.95 | 352.15 | 39.17 | 356.40 | 39.05 | 356.40 | -9.05 | 19791 | 51815 | 19545 | -3113* |
| ANGRA HEROISMO | ANH | 38.32 | 332.78 | 51.68 | 43.93 | 50.70 | 52.98 | 54.33 | 53.01 | 54.39 | -15.09 | 24661 | 37003 | 23811 | -6420* |
| ANNAMALAINAGAR | ANN | 11.37 | 79.68 | 78.63 | 88.50 | 150.72 | 87.22 | 151.24 | | | -2.60 | 40309 | 4213 | 40267 | -1832 |
| ANTIPOLO | ANO | 14.60 | 121.17 | 75.40 | 86.50 | 191.21 | 83.27 | 191.73 | | | -.61 | 39293 | 10232 | 39291 | -418* |
| APIA | API | -13.81 | 188.23 | 103.81 | 105.75 | 261.58 | 105.23 | 261.90 | | | 12.48 | 34393 | -19991 | 33579 | 7436 |
| ARCTIC ICE FLO | AIF | 83.53 | 193.05 | 6.47 | 13.65 | 208.33 | 10.61 | 212.50 | 10.64 | 212.40 | 42.89 | 2301 | 57134 | 1686 | 1566* |
| ARCTIC VILLAGE | AVI | 68.13 | 214.43 | 21.87 | 21.77 | 256.17 | 21.49 | 260.13 | 21.51 | 259.96 | 32.14 | 10425 | 56431 | 8827 | 5546* |
| ARGENTINE ISLAND | AIA | -65.25 | 295.74 | 155.25 | 143.96 | 4.37 | 139.30 | 9.17 | 139.22 | 8.99 | 16.83 | 22360 | -34742 | 21401 | 6477 |
| ARKHANGELSK | ARK | 64.60 | 40.50 | 25.40 | 31.17 | 129.25 | 29.82 | 118.02 | 29.79 | 118.02 | 12.85 | 12777 | 51774 | 12457 | 2842* |
| ARTI | ARS | 56.43 | 58.57 | 33.57 | 41.52 | 139.56 | 38.26 | 131.61 | 38.25 | 131.60 | 11.61 | 16653 | 52700 | 16312 | 3353 |
| ASHKHABAD | ASH | 37.95 | 58.11 | 52.05 | 59.57 | 134.30 | 57.30 | 129.78 | 57.31 | 129.77 | 4.03 | 27589 | 40940 | 27521 | 1941 |
| ASO | ASO | 32.88 | 131.01 | 57.12 | 67.74 | 199.35 | 64.36 | 201.99 | 64.37 | 202.01 | -6.06 | 32222 | 34058 | 32042 | -3402* |
| ATHENS | ATH | 37.97 | 23.72 | 52.03 | 53.70 | 102.64 | 58.92 | 96.31 | 58.92 | 96.23 | 1.74 | 26287 | 36589 | 26275 | 798* |
| AU TAU | AUT | 22.45 | 114.05 | 67.55 | 78.85 | 184.19 | 75.04 | 184.82 | 75.11 | 184.83 | -1.58 | 38188 | 22969 | 38173 | -1053* |
| AUCKLAND ISLAND | AU* | -50.87 | 166.08 | 140.87 | 145.98 | 250.20 | 149.22 | 253.12 | 149.27 | 253.19 | 27.46 | 15805 | -60953 | 14024 | 7288* |
| AVERROES | AVE | 33.30 | 352.59 | 56.70 | 52.22 | 70.44 | 65.34 | 69.15 | 65.50 | 69.13 | -6.78 | 28095 | 30115 | 27899 | -3317* |
| BACK | BKC | 57.68 | 265.77 | 32.32 | 22.39 | 325.46 | 21.38 | 329.56 | 21.28 | 329.34 | 2.92 | 8042 | 60702 | 8032 | 410* |
| BAGUIO | BAG | 16.42 | 120.60 | 73.58 | 84.71 | 190.60 | 81.36 | 191.18 | | | -.95 | 39058 | 13113 | 39053 | -648* |
| BAKER LAKE | BLC | 64.33 | 263.97 | 25.67 | 16.18 | 317.71 | 15.36 | 323.91 | 15.21 | 323.69 | 2.48 | 4637 | 60650 | 4633 | 201 |
| BALDWIN | BAL | 38.78 | 264.83 | 51.22 | 41.15 | 330.24 | 40.41 | 330.94 | 40.34 | 330.77 | 6.31 | 20703 | 52096 | 20578 | 2275* |
| BANGKOK | BKK | 13.72 | 100.57 | 76.28 | 87.47 | 171.23 | 85.06 | 171.55 | | | -.32 | 41080 | 8248 | 41079 | -229* |
| BANGUI | BNG | 4.44 | 18.57 | 85.56 | 85.46 | 89.86 | 98.43 | 89.59 | | | -3.12 | 32150 | -9086 | 32102 | -1750 |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| BARNAUL | BM* | 53.33 | 83.78 | 36.67 | 47.09 | 159.20 | 41.68 | 155.82 | 41.67 | 155.79 | 7.71 | 17958 | 55796 | 17796 | 2409* |
| BARRACKPORE | BAC | 22.78 | 88.36 | 67.22 | 77.84 | 160.02 | 74.79 | 159.80 | 74.86 | 159.76 | -.83 | 38598 | 23671 | 38594 | -559* |
| BARROW | BRW | 71.32 | 203.38 | 18.68 | 21.09 | 242.66 | 20.33 | 248.14 | 20.39 | 248.06 | 25.88 | 9798 | 56409 | 8815 | 4277 |
| BARTER ISLAND | BTI | 70.13 | 216.02 | 19.87 | 19.78 | 254.50 | 19.24 | 259.00 | 19.21 | 259.15 | 34.92 | 8940 | 56963 | 7330 | 5118* |
| BARTH | BAH | 54.37 | 12.75 | 35.63 | 35.86 | 98.98 | 39.43 | 90.89 | 39.45 | 90.80 | -.71 | 17471 | 45717 | 17470 | -216* |
| BATAVIA | BTV | -6.18 | 106.83 | 96.18 | 107.48 | 177.12 | 106.08 | 177.69 | | | .45 | 37396 | -24118 | 37395 | 294* |
| BEAR ISLAND | BJN | 74.50 | 19.20 | 15.50 | 19.05 | 125.03 | 18.96 | 110.18 | 18.90 | 110.05 | 3.25 | 9280 | 52920 | 9265 | 526 |
| BEIJING | BJI | 40.04 | 116.18 | 49.96 | 61.22 | 185.74 | 56.35 | 187.77 | 56.36 | 187.78 | -5.99 | 29611 | 46183 | 29449 | -3091 |
| BELIY ISLAND | BEY | 73.30 | 70.00 | 16.70 | 26.40 | 155.67 | 22.13 | 147.04 | 22.15 | 146.94 | 28.57 | 7436 | 57107 | 6531 | 3556* |
| BELOIT | BLT | 39.48 | 261.87 | 50.52 | 40.77 | 326.62 | 40.10 | 326.94 | 40.07 | 326.83 | 8.28 | 20620 | 52271 | 20405 | 2970* |
| BELSK | BEL | 51.84 | 20.79 | 38.16 | 39.80 | 105.12 | 42.59 | 96.62 | 42.65 | 96.59 | 2.62 | 19063 | 45418 | 19043 | 871 |
| BEUTHEN | BEU | 50.35 | 18.92 | 39.65 | 40.85 | 102.70 | 44.26 | 94.61 | 44.28 | 94.56 | 1.50 | 19437 | 44275 | 19430 | 509* |
| BEUTHEN MIKILOW | BMK | 50.15 | 18.90 | 39.85 | 41.04 | 102.59 | 44.49 | 94.53 | 44.51 | 94.49 | 1.48 | 19539 | 44173 | 19532 | 505* |
| BIG DELTA | BDE | 64.00 | 214.27 | 26.00 | 25.45 | 260.95 | 25.62 | 263.72 | 25.62 | 263.57 | 29.28 | 13011 | 55291 | 11349 | 6363* |
| BINZA | BIN | -4.27 | 15.37 | 94.27 | 93.34 | 85.01 | 106.87 | 85.68 | | | -6.70 | 26563 | -19703 | 26382 | -3099* |
| BOCHUM | BOC | 51.49 | 7.23 | 38.51 | 37.50 | 92.15 | 42.37 | 85.40 | 42.42 | 85.32 | -2.77 | 18887 | 44122 | 18865 | -913* |
| BODO | BOD | 69.30 | 14.42 | 20.70 | 22.56 | 113.40 | 23.66 | 100.91 | 23.67 | 100.87 | -.46 | 11217 | 50930 | 11217 | -90* |
| BOROK | BOX | 58.03 | 38.97 | 31.97 | 37.13 | 124.14 | 36.44 | 114.21 | 36.40 | 114.17 | 9.33 | 15688 | 49557 | 15480 | 2543* |
| BOSSEKOP | BOP | 69.97 | 23.25 | 20.03 | 23.52 | 121.05 | 23.63 | 108.01 | 23.63 | 108.00 | 5.33 | 10908 | 51579 | 10861 | 1013* |
| BOULDER | BOU | 40.14 | 254.76 | 49.86 | 40.96 | 318.22 | 40.72 | 317.98 | 40.67 | 317.83 | 12.23 | 21349 | 51156 | 20864 | 4525 |
| BOUZAREAH | BZR | 36.80 | 3.02 | 53.20 | 50.79 | 82.10 | 60.99 | 78.21 | 61.05 | 78.14 | -3.20 | 26656 | 33738 | 26614 | -1488* |
| BRESLAU | BS* | 51.12 | 17.03 | 38.88 | 39.77 | 101.29 | 43.31 | 93.28 | 43.34 | 93.20 | .91 | 19050 | 44506 | 19048 | 303* |
| BRISBANE | BRS | -27.53 | 152.92 | 117.53 | 125.35 | 228.63 | 126.56 | 226.68 | 126.80 | 228.28 | 10.97 | 28572 | -46059 | 28050 | 5437* |
| BRORFELDE | BFE | 55.63 | 11.67 | 34.37 | 34.46 | 98.71 | 37.94 | 90.50 | 37.97 | 90.42 | -1.48 | 17204 | 46040 | 17198 | -445 |
| BUCHAREST | BVC | 44.42 | 26.10 | 45.58 | 47.92 | 106.98 | 51.10 | 99.51 | 51.14 | 99.41 | 2.82 | 22618 | 41603 | 22591 | 1113* |
| BUDAKESZI | BUZ | 47.52 | 18.90 | 42.48 | 43.55 | 101.44 | 47.53 | 93.84 | 47.55 | 93.78 | 1.35 | 20912 | 42771 | 20906 | 493* |
| BUDAPEST | HB* | 47.50 | 19.03 | 42.50 | 43.60 | 101.56 | 47.55 | 93.96 | 47.58 | 93.89 | 1.39 | 20923 | 42771 | 20917 | 508* |
| BUDKOV | BDV | 49.08 | 14.02 | 40.92 | 41.12 | 97.50 | 45.55 | 90.17 | 45.62 | 90.09 | -.08 | 20323 | 43140 | 20323 | -29 |
| BURLINGTON | BRT | 39.38 | 257.73 | 50.62 | 41.33 | 321.83 | 40.91 | 321.73 | 40.99 | 321.74 | 10.60 | 21213 | 51449 | 20851 | 3902* |
| BYRD STATION | BYR | -80.02 | 240.48 | 170.02 | 160.62 | 336.71 | 157.94 | 353.68 | 157.92 | 353.58 | 70.88 | 16257 | -55648 | 5325 | 15360* |
| CAMBRIDGE BAY | CBB | 69.20 | 255.00 | 20.80 | 13.09 | 297.09 | 12.21 | 303.93 | 12.21 | 303.59 | 27.41 | 3095 | 60054 | 2747 | 1425 |
| CAMPBELL ISLAND | CAI | -52.50 | 169.20 | 142.50 | 146.96 | 254.43 | 150.26 | 258.16 | 150.25 | 258.14 | 29.97 | 15322 | 61148 | 13273 | 7654* |
| CANARIAS | TEN | 28.48 | 343.74 | 61.52 | 55.36 | 59.99 | 70.16 | 61.38 | 71.64 | 61.39 | -10.21 | 29232 | 24047 | 28768 | -5185 |
| CANBERRA | CAN | -35.32 | 149.36 | 125.32 | 133.61 | 226.14 | 135.71 | 226.06 | 135.76 | 225.62 | 12.14 | 23813 | -53770 | 23280 | 5011 |
| CAP THORDSEN | SL* | 78.47 | 15.70 | 11.53 | 15.56 | 131.88 | 14.96 | 114.97 | 14.93 | 115.46 | -.55 | 7631 | 53616 | 7631 | -73* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CAPE CHELYUSKIN | CCS | 77.72 | 104.28 | 12.28 | 23.59 | 177.17 | 18.71 | 175.06 | 18.71 | 174.99 | 15.33 | 3460 | 59150 | 3337 | 915 |
| CAPE GOOD HOPE | CGH | -33.93 | 18.48 | 123.93 | 122.96 | 81.40 | 131.56 | 80.30 | 131.66 | 80.36 | -23.68 | 11287 | -25855 | 10337 | -4533* |
| CAPE HALLETT | HLL | -72.32 | 170.22 | 162.32 | 164.45 | 278.76 | 167.40 | 299.46 | 167.38 | 298.79 | 111.09 | 6994 | -64985 | -2517 | 6526* |
| CAPE KAMENNIY | CKA | 68.50 | 73.60 | 21.50 | 31.34 | 155.53 | 26.67 | 148.28 | 26.67 | 148.16 | 23.28 | 9285 | 57525 | 8529 | 3670* |
| CAPE PARRY | CPY | 70.17 | 235.28 | 19.83 | 16.01 | 271.95 | 15.29 | 276.44 | 15.21 | 276.11 | 44.58 | 5978 | 58582 | 4258 | 4196* |
| CAPE SCHMIDT | CPS | 68.92 | 180:52 | 21.08 | 26.90 | 228.72 | 25.78 | 235.01 | 25.82 | 235.06 | 8.00 | 12539 | 54528 | 12417 | 1745* |
| CAPE TOWN | CTO | -33.95 | 18.47 | 123.95 | 122.98 | 81.38 | 131.58 | 80.27 | 131.67 | 80.34 | -23.69 | 11286 | -25852 | 10335 | -4535* |
| CAPE WELLEN | CWE | 66.16 | 190.17 | 23.84 | 27.89 | 238.48 | 27.61 | 243.70 | 27.58 | 243.71 | 14.78 | 14195 | 53530 | 13725 | 3622 |
| CAPE ZHELANIA | CZA | 77.00 | 68.60 | 13.00 | 22.77 | 157.58 | 18.76 | 148.26 | 18.77 | 148.08 | 32.04 | 6113 | 56855 | 5182 | 3243* |
| CAPODIMONTE | CPD | 40.86 | 14.26 | 49.14 | 49.06 | 94.51 | 55.62 | 88.42 | 55.66 | 88.33 | -.05 | 24561 | 37972 | 24561 | -21* |
| CAPRI | CPI | 40.55 | 14.22 | 49.45 | 49.36 | 94.37 | 56.02 | 88.33 | 56.05 | 88.24 | -.07 | 24734 | 37730 | 24734 | -30* |
| CARROLLTON | CAX | 39.37 | 266.47 | 50.63 | 40.42 | 332.06 | 39.57 | 333.04 | 39.49 | 332.98 | 5.07 | 20178 | 52728 | 20099 | 1783* |
| CASEY | CSY | -66.28 | 110.53 | 156.28 | 167.59 | 181.76 | 170.79 | 154.48 | 170.86 | 154.86 | -95.82 | 9223 | -63241 | -935 | -9175* |
| CASPER | CSR | 42.83 | 253.63 | 47.17 | 38.46 | 316.17 | 38.14 | 315.98 | 38.06 | 315.91 | 13.46 | 19625 | 53433 | 19086 | 4568* |
| CASTELLACCIO | CAO | 44.43 | 8.93 | 45.57 | 44.58 | 90.64 | 51.01 | 84.73 | 51.07 | 84.63 | -1.63 | 22570 | 40127 | 22561 | -642* |
| CASTLE ROCK | CRC | 37.24 | 237.87 | 52.76 | 46.36 | 300.27 | 47.12 | 299.72 | 47.12 | 299.66 | 16.24 | 24101 | 44746 | 23139 | 6740* |
| CEBU | CCP | 10.30 | 123.90 | 79.70 | 90.67 | 194.07 | 87.78 | 194.42 | | | .15 | 39400 | 3419 | 39400 | 103* |
| CHA PA | CPA | 22.35 | 103.83 | 67.65 | 78.92 | 174.57 | 75.36 | 174.82 | 75.40 | 174.77 | -.78 | 38929 | 23036 | 38925 | -530* |
| CHAMBON-LA-FORET | CLF | 48.02 | 2.26 | 41.98 | 39.83 | 85.57 | 46.14 | 80.31 | 46.20 | 80.24 | -4.34 | 20844 | 42116 | 20784 | -1579 |
| CHANGCHUN | CNH | 43.83 | 125.30 | 46.17 | 57.15 | 193.44 | 52.81 | 196.92 | 52.79 | 196.93 | -8.91 | 26609 | 47480 | 26288 | -4121* |
| CHARACATO | ARE | -16.47 | 288.52 | 106.47 | 95.15 | 358.96 | 92.32 | 359.33 | | | 1.29 | 25807 | -2620 | 25800 | 581* |
| CHARCOT | CTX | -69.37 | 139.03 | 159.37 | 167.92 | 235.89 | 173.45 | 242.60 | 173.40 | 242.69 | 165.00 | 3413 | -66275 | -3297 | 883* |
| CHATONNAYE | CTE | 46.67 | 06.83 | 43.33 | 42.02 | 89.50 | 48.10 | 83.61 | 48.19 | 83.50 | -2.49 | 21364 | 41446 | 21344 | -928* |
| CHELTENHAM | CLM | 38.73 | 283.16 | 51.27 | 40.04 | 352.18 | 39.26 | 356.42 | 39.17 | 356.49 | -9.06 | 19857 | 51719 | 19609 | -3127* |
| CHESTERFIELD INL | CFI | 63.33 | 269.28 | 26.67 | 16.52 | 327.34 | 15.12 | 330.07 | 15.64 | 333.68 | -10.62 | 4659 | 60390 | 4579 | -859* |
| CHICHIJIMA | CBI | 27.08 | 142.17 | 62.92 | 72.60 | 210.15 | 70.56 | 212.32 | 70.62 | 212.35 | -3.13 | 32694 | 24133 | 32645 | -1792 |
| CHICLAYO | CCL | -06.80 | 280.20 | 96.80 | 85.64 | 350.64 | 84.92 | 350.74 | | | 4.13 | 28768 | 5381 | 28693 | 2072* |
| CHIMBOTE | CMB | -09.10 | 281.40 | 99.10 | 87.90 | 351.90 | 86.87 | 352.11 | | | 4.00 | 28261 | 3257 | 28192 | 1971* |
| CHRISTCHURCH | CHR | -43.53 | 172.62 | 133.53 | 137.72 | 253.84 | 140.25 | 255.98 | 140.29 | 256.01 | 22.62 | 21087 | -54935 | 19465 | 8110* |
| CLAUSTHAL | CLZ | 51.81 | 10.34 | 38.19 | 37.81 | 95.30 | 42.25 | 88.00 | 42.25 | 87.93 | -1.54 | 18725 | 44417 | 18718 | -503* |
| CLIMAX | CLI | 39.37 | 253.82 | 50.63 | 41.84 | 317.34 | 41.70 | 316.99 | 41.65 | 316.85 | 12.53 | 21635 | 50726 | 21120 | 4694* |
| COIMBRA | COI | 40.22 | 351.58 | 49.78 | 45.29 | 71.54 | 55.10 | 69.79 | 55.15 | 69.75 | -7.54 | 24865 | 36412 | 24650 | -3266 |
| COLLEGE | CMO | 64.86 | 212.16 | 25.14 | 25.07 | 258.14 | 25.20 | 261.22 | 25.18 | 261.15 | 28.12 | 12997 | 55380 | 11462 | 6127 |
| COLLMBERG | CLL | 51.32 | 13.00 | 38.68 | 38.79 | 97.60 | 42.91 | 90.03 | 42.95 | 89.94 | -.50 | 18959 | 44331 | 18958 | -165* |
| COPENHAGEN | COP | 55.68 | 12.58 | 34.32 | 34.58 | 99.59 | 37.92 | 91.26 | 37.97 | 91.18 | -.84 | 16856 | 46259 | 16854 | -247* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COSTA RICA | SNJ | 9.91 | 276.04 | 80.09 | 69.11 | 345.69 | 68.71 | 345.52 | | | 3.05 | 29778 | 23168 | 29736 | 1584* |
| CRACOW | CRA | 50.05 | 19.95 | 39.95 | 41.34 | 103.52 | 44.65 | 95.37 | 44.65 | 95.35 | 1.80 | 19589 | 44210 | 19579 | 615* |
| CUAJIMALPA | CUA | 19.37 | 260.72 | 70.63 | 60.84 | 328.54 | 61.44 | 328.03 | | | 7.67 | 29508 | 31718 | 29244 | 3938* |
| CUZCO | CUS | -13.53 | 288.03 | 103.53 | 92.21 | 358.48 | 89.86 | 358.81 | | | .82 | 26566 | -154 | 26563 | 380* |
| DALLAS | DAL | 32.99 | 263.25 | 57.01 | 47.06 | 329.42 | 46.71 | 329.45 | 46.64 | 329.31 | 7.18 | 24015 | 46818 | 23827 | 3002* |
| DAR ES SALAAM | DM* | -6.82 | 39.32 | 96.82 | 100.48 | 108.08 | 107.10 | 110.02 | | | -2.60 | 26712 | -20876 | 26685 | -1212* |
| DAVAO | DAV | 7.05 | 125.38 | 82.95 | 93.84 | 195.70 | 91.13 | 195.97 | | | .75 | 39308 | -1588 | 39305 | 515* |
| DAVIS | DVS | -68.58 | 77.97 | 158.58 | 166.86 | 122.53 | 164.50 | 99.16 | 164.49 | 99.04 | -75.97 | 16631 | -52607 | 4032 | -16135* |
| DE BILT | DBN | 52.10 | 5.18 | 37.90 | 36.51 | 90.47 | 41.50 | 83.97 | 41.54 | 83.90 | -3.72 | 18580 | 44360 | 18541 | -1205* |
| DEHRA DUN | DDI | 30.32 | 78.06 | 59.68 | 69.48 | 151.17 | 66.06 | 149.78 | 66.06 | 149.80 | .50 | 33817 | 34734 | 33816 | 295* |
| DEKELEIA | DEK | 38.10 | 23.77 | 51.90 | 53.58 | 102.73 | 58.76 | 96.38 | 58.76 | 96.29 | 1.76 | 26213 | 36704 | 26201 | 805* |
| DIXON ISLAND | DIK | 73.54 | 80.56 | 16.46 | 26.91 | 162.31 | 22.13 | 155.83 | 22.11 | 155.74 | 27.27 | 6404 | 58315 | 5692 | 2934 |
| DOMBAS | DOB | 62.07 | 9.12 | 27.93 | 27.99 | 101.04 | 30.74 | 91.55 | 30.72 | 91.56 | -3.35 | 14230 | 48348 | 14206 | -832 |
| DOURBES | DOU | 50.10 | 4.60 | 39.90 | 38.31 | 88.86 | 43.77 | 82.80 | 43.86 | 82.75 | -3.64 | 19863 | 43346 | 19823 | -1263 |
| DUBLIN | DL* | 53.35 | 353.73 | 36.65 | 33.10 | 79.67 | 38.77 | 75.44 | 38.82 | 75.39 | -9.43 | 17916 | 44989 | 17674 | -2935* |
| DUMONT DURVILLE | DRV | -66.67 | 140.01 | 156.67 | 165.32 | 232.33 | 170.72 | 235.41 | 170.61 | 235.32 | 158.20 | 1177 | -70123 | -1093 | -437 |
| EAST PORT | EP* | 44.90 | 293.02 | 45.10 | 33.81 | 4.35 | 34.18 | 11.47 | 34.09 | 11.62 | -20.01 | 17400 | 53271 | 16350 | -5954* |
| EASTER ISLAND | EIC | -27.17 | 250.58 | 117.17 | 108.18 | 323.87 | 110.21 | 325.89 | 110.18 | 325.87 | 15.14 | 27342 | -20533 | 26393 | 7141* |
| EBRO | EBR | 40.82 | .49 | 49.18 | 46.41 | 80.90 | 55.32 | 76.96 | 55.34 | 76.93 | -4.29 | 24464 | 37094 | 24395 | -1830* |
| EIELSON AFB | ENB | 64.67 | 212.92 | 25.33 | 25.10 | 259.02 | 25.23 | 262.02 | 25.23 | 261.92 | 28.99 | 12783 | 55300 | 11181 | 6195* |
| EIGHTS | EGS | -75.23 | 282.83 | 165.23 | 153.95 | 356.08 | 149.59 | 5.76 | 149.60 | 5.71 | 32.59 | 20278 | -46498 | 17085 | 10922* |
| EL ABIOD SIDI | EAS | 32.90 | .55 | 57.10 | 54.10 | 78.46 | 66.44 | 75.49 | 66.80 | 75.44 | -3.92 | 28588 | 29751 | 28521 | -1954* |
| ELIZABETHVILLE | ELI | -11.66 | 27.47 | 101.66 | 102.96 | 95.40 | 112.86 | 97.26 | | | -5.66 | 21545 | -25323 | 21440 | -2125* |
| ENKOPING | ENK | 59.60 | 17.02 | 30.40 | 31.77 | 106.21 | 33.92 | 96.47 | 33.95 | 96.45 | 1.11 | 15090 | 47988 | 15087 | 292* |
| ESKDALEMUIR | ESK | 55.32 | 356.80 | 34.68 | 31.85 | 84.04 | 36.88 | 78.62 | 36.93 | 78.60 | -8.35 | 17294 | 45788 | 17110 | -2513 |
| ESKIMO POINT | EKP | 61.10 | 265.93 | 28.90 | 19.04 | 323.51 | 18.11 | 328.75 | 18.02 | 328.62 | .74 | 5911 | 60722 | 5911 | 76* |
| ESPANOLA | EPN | 35.98 | 253.95 | 54.02 | 45.16 | 318.31 | 45.24 | 317.86 | 45.36 | 317.74 | 11.70 | 23500 | 47653 | 23012 | 4766* |
| ETTAYAPURAM | ETT | 09.00 | 78.00 | 81.00 | 90.67 | 148.84 | 89.76 | 149.45 | | | -2.94 | 39990 | 426 | 39937 | -2051* |
| EUSEBIO | EUS | -3.89 | 321.56 | 93.89 | 84.29 | 32.06 | 91.26 | 33.75 | | | -21.27 | 26896 | -2023 | 25064 | -9757* |
| EYREWELL | EYR | -43.42 | 172.35 | 133.42 | 137.65 | 253.51 | 140.18 | 255.63 | 140.23 | 255.66 | 22.51 | 21116 | -54927 | 19507 | 8084* |
| FALMOUTH | FAL | 50.15 | 354.92 | 39.85 | 36.37 | 79.15 | 42.72 | 75.19 | 42.80 | 75.15 | -8.02 | 19509 | 43305 | 19318 | -2722* |
| FANNING | FAN | 3.91 | 200.61 | 86.09 | 85.98 | 270.23 | 85.14 | 270.43 | | | 9.48 | 32665 | 5985 | 32219 | 5380* |
| FLENSBURG | FLE | 54.78 | 9.43 | 35.22 | 34.82 | 96.09 | 38.76 | 88.36 | 38.77 | 88.29 | -2.16 | 17283 | 45736 | 17271 | -651* |
| FORT CHURCHILL | FCC | 58.77 | 265.90 | 31.23 | 21.32 | 325.02 | 20.33 | 329.46 | 20.19 | 329.25 | 2.36 | 7555 | 60697 | 7549 | 312 |
| FORT RAE | FRA | 62.80 | 243.90 | 27.20 | 20.81 | 292.95 | 20.23 | 294.90 | 20.18 | 294.64 | 32.54 | 8303 | 59633 | 7000 | 4466* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORT RAE 1 | FE* | 62.65 | 244.27 | 27.35 | 20.88 | 293.54 | 20.29 | 295.48 | 20.24 | 295.21 | 32.18 | 8318 | 59667 | 7040 | 4430* |
| FORT SIMPSON | FSP | 61.75 | 238.77 | 28.25 | 22.72 | 288.15 | 22.33 | 289.42 | 22.32 | 289.29 | 32.72 | 10012 | 58896 | 8423 | 5412* |
| FORT SMITH | FSM | 58.00 | 246.00 | 32.00 | 24.93 | 299.87 | 24.39 | 300.80 | 24.35 | 300.57 | 26.02 | 10902 | 59365 | 9797 | 4783* |
| FORT YUKON | FYU | 66.57 | 214.73 | 23.43 | 23.08 | 258.48 | 23.00 | 261.89 | 22.99 | 261.73 | 31.20 | 11360 | 56106 | 9717 | 5885* |
| FREDERICKSBURG | FRD | 38.21 | 282.63 | 51.79 | 40.59 | 351.57 | 39.76 | 355.59 | 39.64 | 355.61 | -8.43 | 20449 | 51352 | 20228 | -2998 |
| FREETOWN | FTN | 08.47 | 346.78 | 81.53 | 75.55 | 59.14 | 93.00 | 60.48 | | | -12.19 | 31154 | -1346 | 30452 | -6578* |
| FREIBERG | FB* | 50.92 | 13.35 | 39.08 | 39.24 | 97.73 | 43.39 | 90.18 | 43.43 | 90.09 | -.37 | 19159 | 44156 | 19159 | -124* |
| FUQUENE | FUQ | 5.47 | 286.26 | 84.53 | 73.23 | 356.53 | 71.79 | 357.35 | | | -2.27 | 28944 | 18761 | 28921 | -1146 |
| FURSTENFELDBRUCK | FUR | 48.17 | 11.28 | 41.83 | 41.46 | 94.46 | 46.55 | 87.61 | 46.58 | 87.56 | -.95 | 20820 | 42489 | 20817 | -348 |
| GENOVA | GEN | 44.55 | 08.95 | 45.45 | 44.47 | 90.71 | 50.86 | 84.77 | 50.93 | 84.68 | -1.63 | 22505 | 40208 | 22496 | -640* |
| GIBILMANNA | GIB | 37.99 | 14.02 | 52.01 | 51.79 | 93.34 | 59.30 | 87.69 | 59.37 | 87.62 | -.17 | 26168 | 35617 | 26168 | -78* |
| GILLAM | GIM | 56.85 | 265.58 | 33.15 | 23.22 | 325.64 | 22.21 | 329.45 | 22.10 | 329.25 | 3.54 | 8600 | 60631 | 8584 | 531* |
| GJOAHAVN | GJO | 68.63 | 264.08 | 21.37 | 12.13 | 311.67 | 11.39 | 320.90 | 11.29 | 320.36 | -3.34 | 2229 | 59636 | 2225 | -130* |
| GLENLEA | GLL | 49.60 | 262.90 | 40.40 | 30.64 | 325.16 | 29.66 | 326.84 | 29.55 | 326.70 | 7.89 | 13860 | 58658 | 13729 | 1903* |
| GNANGARA | GNA | -31.78 | 115.95 | 121.78 | 133.01 | 187.40 | 134.37 | 185.90 | 134.37 | 185.94 | -3.29 | 23409 | -53652 | 23370 | -1346 |
| GODHAAB 1 | GH* | 64.18 | 308.28 | 25.82 | 15.50 | 31.48 | 18.41 | 39.16 | 18.36 | 39.27 | -41.18 | 10110 | 54845 | 7609 | -6657* |
| GODHAVN | GDH | 69.25 | 306.47 | 20.75 | 10.43 | 34.62 | 13.37 | 41.91 | 13.25 | 41.84 | -48.14 | 8537 | 56362 | 5696 | -6358 |
| GONZALES VIDELA | GVD | -64.82 | 297.15 | 154.82 | 143.56 | 5.40 | 138.89 | 9.76 | 138.81 | 9.66 | 16.00 | 22085 | -34623 | 21229 | 6087* |
| GOTTINGEN | GT* | 51.53 | 9.95 | 38.47 | 37.99 | 94.80 | 42.54 | 87.59 | 42.54 | 87.54 | -1.67 | 18859 | 44267 | 18851 | -550* |
| GREAT WHALE R. | GWC | 55.27 | 282.22 | 34.73 | 23.56 | 349.44 | 23.16 | 356.71 | 23.00 | 356.80 | -19.44 | 10665 | 59164 | 10057 | -3550 |
| GREENWICH | GRW | 51.48 | .00 | 38.52 | 36.10 | 85.00 | 41.81 | 79.61 | 41.79 | 79.59 | -5.94 | 18876 | 43967 | 18775 | -1953* |
| GROCKA | GCK | 44.63 | 20.77 | 45.37 | 46.69 | 102.07 | 50.94 | 94.80 | 50.96 | 94.73 | 1.59 | 22693 | 41018 | 22684 | 630 |
| GUAM | GUA | 13.58 | 144.87 | 76.42 | 85.73 | 214.26 | 84.18 | 214.98 | | | 1.92 | 35805 | 7239 | 35785 | 1205 |
| GUANGZHOU | GZH | 23.09 | 113.34 | 66.91 | 78.21 | 183.52 | 74.36 | 184.16 | 74.62 | 203.81 | -1.51 | 38104 | 23696 | 38090 | -1004 |
| HACKNEY WICK | HW* | 51.55 | 359.97 | 38.45 | 36.01 | 85.01 | 41.72 | 79.61 | 41.58 | 79.38 | -6.12 | 18800 | 44043 | 18693 | -2004* |
| HACKNEY WICK 2 | HW* | 51.63 | 359.67 | 38.37 | 35.88 | 84.75 | 41.59 | 79.40 | 41.58 | 79.38 | -6.12 | 18800 | 44042 | 18693 | -2004* |
| HALLEY BAY | HBA | -75.52 | 333.32 | 165.52 | 156.04 | 25.20 | 150.98 | 28.21 | 150.76 | 28.19 | -1.50 | 20200 | -41500 | 20193 | -529* |
| HAMBURG | HM* | 53.55 | 9.98 | 36.45 | 36.08 | 95.90 | 40.22 | 88.32 | 40.21 | 88.26 | -1.82 | 17869 | 45218 | 17860 | -568* |
| HARTEBEESTHOEK | HBK | -25.88 | 27.71 | 115.88 | 116.93 | 92.49 | 126.10 | 93.60 | 126.18 | 93.65 | -16.06 | 13197 | 26924 | 12681 | -3652 |
| HARTLAND | HAD | 51.00 | 355.52 | 39.00 | 35.68 | 80.19 | 41.81 | 75.94 | 41.87 | 75.90 | -7.73 | 19331 | 43769 | 19155 | -2600 |
| HATIZYO | HTY | 33.07 | 139.83 | 56.93 | 66.82 | 207.28 | 64.42 | 210.31 | 64.48 | 210.32 | -7.68 | 31415 | 31770 | 31133 | -4201 |
| HAVANA | HVN | 22.97 | 277.86 | 67.03 | 55.99 | 346.93 | 55.10 | 347.90 | 55.02 | 347.84 | -.31 | 26909 | 37949 | 26909 | -146* |
| HEALY | HEA | 63.86 | 211.03 | 26.14 | 26.19 | 258.16 | 26.44 | 261.08 | 26.42 | 261.01 | 27.49 | 13536 | 54714 | 12008 | 6248* |
| HEARD ISLAND | HII | -53.03 | 73.37 | 143.03 | 151.47 | 131.89 | 151.88 | 121.31 | 152.10 | 121.20 | -57.14 | 17965 | -47263 | 9748 | -15091* |
| HEISS ISLAND | HIS | 80.62 | 58.05 | 9.38 | 18.66 | 156.45 | 15.31 | 144.79 | 15.32 | 145.06 | 29.68 | 5481 | 56068 | 4762 | 2714* |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| HEL | HLP | 54.61 | 18.82 | 35.39 | 36.80 | 104.72 | 39.48 | 95.93 | 39.49 | 95.85 | 1.19 | 17653 | 46127 | 17649 | 367 |
| HELWAN | HLW | 29.86 | 31.34 | 60.14 | 63.04 | 107.69 | 68.21 | 102.70 | 68.25 | 102.64 | 1.98 | 31031 | 29386 | 31012 | 1072* |
| HERMANUS | HER | -34.43 | 19.23 | 124.43 | 123.58 | 81.98 | 131.99 | 80.87 | 132.07 | 80.93 | -23.51 | 11363 | -25753 | 10420 | -4533 |
| HERMSDORF | HDF | 50.76 | 16.24 | 39.24 | 39.95 | 100.38 | 43.68 | 92.51 | 43.73 | 92.44 | .64 | 19234 | 44272 | 19233 | 215* |
| HOLLANDIA | HNA | -2.57 | 140.51 | 92.57 | 102.25 | 211.68 | 100.98 | 211.38 | | | 4.16 | 37411 | -15199 | 37312 | 2714* |
| HOLSTEINSBORG 1 | HS* | 66.87 | 306.73 | 23.13 | 12.75 | 31.67 | 15.61 | 39.48 | 15.47 | 39.42 | -45.50 | 8834 | 55273 | 6192 | -6301* |
| HONG KONG | HKC | 22.36 | 114.22 | 67.64 | 78.93 | 184.36 | 75.13 | 184.99 | 75.39 | 184.98 | -1.55 | 38259 | 22569 | 38245 | -1035* |
| HONOLULU | HON | 21.32 | 202.00 | 68.68 | 68.65 | 267.96 | 68.17 | 268.68 | 68.14 | 268.68 | 11.53 | 27705 | 22311 | 27145 | 5542 |
| HUANCAYO | HUA | -12.05 | 284.66 | 102.05 | 90.76 | 355.17 | 89.00 | 355.52 | | | 2.71 | 27225 | 985 | 27194 | 1290 |
| HURBANOVO | HRB | 47.87 | 18.19 | 42.13 | 43.08 | 100.92 | 47.10 | 93.34 | 47.13 | 93.25 | 1.15 | 20996 | 42772 | 20992 | 425 |
| HYDERABAD | HYB | 17.41 | 78.56 | 72.59 | 82.37 | 150.23 | 80.37 | 150.23 | | | -1.64 | 39715 | 15194 | 39699 | -1140 |
| IBADAN | IBD | 7.43 | 3.90 | 82.57 | 79.67 | 76.02 | 95.89 | 75.74 | | | -5.86 | 32198 | -4819 | 32030 | -3287* |
| INUVIK | INK | 68.25 | 226.70 | 21.75 | 19.29 | 267.09 | 18.87 | 270.56 | 18.86 | 270.36 | 38.75 | 8500 | 57837 | 6629 | 5320* |
| IRKUTSK | IRT | 52.17 | 104.45 | 37.83 | 49.13 | 175.83 | 43.37 | 176.45 | 43.35 | 176.45 | -2.36 | 19559 | 56902 | 19542 | -807 |
| ISLAND LAKE | ISL | 53.88 | 265.32 | 36.12 | 26.17 | 326.66 | 25.14 | 329.66 | 25.02 | 329.50 | 4.70 | 10635 | 60138 | 10599 | 871* |
| ISTANBUL-KANDILL | ISK | 41.06 | 29.06 | 48.94 | 51.71 | 108.61 | 54.92 | 101.60 | 54.92 | 101.57 | 2.94 | 24534 | 39645 | 24502 | 1258* |
| IVALO | IVA | 68.60 | 27.48 | 21.40 | 25.43 | 122.68 | 25.25 | 110.12 | 25.25 | 110.06 | 7.71 | 11385 | 51503 | 11282 | 1527* |
| IVIGTUT | IVI | 61.20 | 311.85 | 28.80 | 18.78 | 34.53 | 21.97 | 41.46 | 21.97 | 41.58 | -36.20 | 11876 | 53747 | 9583 | -7014* |
| IVIGTUT 1 | IV* | 61.20 | 311.73 | 28.80 | 18.77 | 34.36 | 21.94 | 41.33 | 21.84 | 41.44 | -36.25 | 11861 | 53772 | 9565 | -7014* |
| JAIPUR | JAI | 26.92 | 75.80 | 63.08 | 72.65 | 148.69 | 69.69 | 147.54 | 69.70 | 147.53 | -.76 | 35737 | 29594 | 35734 | -477 |
| JALUIT | JAL | 5.92 | 169.65 | 84.08 | 89.80 | 239.53 | 88.77 | 239.87 | | | 9.60 | 34205 | 1537 | 33726 | 5704* |
| JAN MAYEN 1 | JM* | 71.00 | 351.53 | 19.00 | 16.83 | 97.02 | 19.50 | 86.20 | 19.52 | 86.20 | -17.52 | 10339 | 51399 | 9859 | -3112* |
| JARVIS ISLAND | JRV | -.38 | 199.97 | 90.38 | 90.29 | 270.43 | 89.51 | 270.51 | | | 9.66 | 33546 | 778 | 33070 | 5629* |
| JASSY | JSS | 47.18 | 27.53 | 42.82 | 45.51 | 109.32 | 47.92 | 101.35 | 47.95 | 101.24 | 3.47 | 21100 | 43410 | 21061 | 1277* |
| JOHNSON POINT | JOP | 72.47 | 241.70 | 17.53 | 12.93 | 272.78 | 11.97 | 279.07 | 11.90 | 278.72 | 50.86 | 3819 | 58635 | 2411 | 2962* |
| JULIANEHAAB | JUL | 60.72 | 313.97 | 29.28 | 19.50 | 37.21 | 22.91 | 43.49 | 22.90 | 43.70 | -34.81 | 12351 | 53218 | 10141 | -7051* |
| KAKIOKA | KAK | 36.23 | 140.19 | 53.77 | 63.69 | 207.26 | 61.27 | 210.76 | 61.25 | 210.73 | -6.58 | 30192 | 34651 | 29993 | -3464 |
| KALININGRAD | KNG | 54.70 | 20.62 | 35.30 | 37.04 | 106.43 | 39.46 | 97.46 | 39.46 | 97.38 | 2.35 | 17292 | 46383 | 17277 | 709* |
| KANDALAKSHA | KND | 67.13 | 32.43 | 22.87 | 27.57 | 125.02 | 26.97 | 112.93 | 26.96 | 112.88 | 10.07 | 11888 | 51543 | 11705 | 2079* |
| KANOYA | KNY | 31.42 | 130.88 | 58.58 | 69.21 | 199.35 | 65.85 | 201.80 | 65.87 | 201.81 | -5.44 | 32988 | 31976 | 32839 | -3127 |
| KANOZAN | KNZ | 35.25 | 139.96 | 54.75 | 64.69 | 207.17 | 62.25 | 210.52 | 62.25 | 210.51 | -6.24 | 30539 | 33675 | 30358 | -3320 |
| KAP TOBIN | KTG | 70.42 | 238.03 | 19.58 | 15.27 | 274.21 | 14.48 | 278.87 | 14.41 | 278.64 | 45.70 | 5370 | 58741 | 3750 | 3843* |
| KARAGANDA | KGD | 49.82 | 73.08 | 40.18 | 49.67 | 149.75 | 45.13 | 145.04 | 45.09 | 145.03 | 7.66 | 20226 | 52344 | 20045 | 2698 |
| KARAVIA | KVA | -11.64 | 27.42 | 101.64 | 102.93 | 95.37 | 112.84 | 97.22 | | | -5.66 | 21545 | -25323 | 21440 | -2125* |
| KARSANI | KAS | 41.83 | 44.70 | 48.17 | 53.71 | 123.16 | 53.45 | 116.59 | 53.43 | 116.56 | 4.90 | 24291 | 42193 | 24202 | 2075* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KATUURA | KAT | 33.63 | 135.95 | 56.37 | 66.64 | 203.73 | 63.76 | 206.67 | 63.78 | 206.73 | -6.22 | 31463 | 33448 | 31278 | -3409* |
| KAZAN | KZN | 55.83 | 48.85 | 34.17 | 40.77 | 131.37 | 38.77 | 122.43 | 38.77 | 122.45 | 10.46 | 16830 | 50407 | 16550 | 3058 |
| KELES | KEL | 41.42 | 69.21 | 48.58 | 57.55 | 144.84 | 53.80 | 140.99 | 53.78 | 140.98 | 4.62 | 25720 | 45626 | 25636 | 2072* |
| KERGUELEN | KG* | -49.15 | 70.20 | 139.15 | 147.23 | 129.91 | 148.25 | 121.49 | 148.27 | 121.48 | -52.52 | 18344 | -44414 | 11162 | -14557* |
| KEW | KEW | 51.47 | 359.69 | 38.53 | 36.05 | 84.68 | 41.79 | 79.36 | 41.77 | 79.34 | -6.08 | 18880 | 43961 | 18774 | -2000* |
| KEY WEST | QW* | 24.55 | 278.20 | 65.45 | 54.38 | 347.23 | 53.47 | 348.47 | 53.38 | 348.37 | -.86 | 26349 | 39611 | 26346 | -395* |
| KHABAROVSK | KHB | 48.48 | 135.07 | 41.52 | 51.93 | 201.23 | 48.47 | 206.08 | 48.45 | 206.10 | -11.34 | 23994 | 48491 | 23526 | -4718* |
| KHARASAVEY | KHS | 71.13 | 66.83 | 18.87 | 28.21 | 152.31 | 24.07 | 143.39 | 24.10 | 143.28 | 25.92 | 8627 | 56674 | 7759 | 3771* |
| KIEL | KE* | 54.33 | 10.15 | 35.67 | 35.38 | 96.51 | 39.33 | 88.75 | 39.33 | 88.69 | -1.81 | 17495 | 45572 | 17486 | -553* |
| KIEV | KIV | 50.72 | 30.30 | 39.28 | 42.63 | 113.24 | 43.92 | 104.54 | 44.02 | 104.51 | 4.99 | 19498 | 45618 | 19424 | 1696 |
| KINGUAFJORD | KJ* | 66.60 | 292.68 | 23.40 | 12.12 | 5.85 | 13.54 | 17.95 | 13.41 | 17.76 | -49.38 | 6775 | 57438 | 4411 | -5143* |
| KIRUNA | KIR | 67.83 | 20.42 | 22.17 | 24.91 | 116.37 | 25.60 | 104.08 | 25.59 | 104.10 | -5.69 | 11179 | 50928 | 11124 | -1108 |
| KLAGENFURT | KF* | 46.62 | 14.30 | 43.38 | 43.54 | 96.71 | 48.47 | 89.76 | 48.54 | 89.65 | -.00 | 21395 | 41879 | 21395 | 0* |
| KODAIKANAL | KOD | 10.23 | 77.46 | 79.77 | 89.40 | 148.43 | 88.37 | 148.97 | | | -2.38 | 39265 | 2444 | 39231 | -1636 |
| KONTAGORA | KNT | 10.40 | 05.45 | 79.60 | 77.05 | 78.14 | 92.90 | 77.44 | | | -4.73 | 33251 | -601 | 33138 | -2742* |
| KOROR | KOR | 7.34 | 134.50 | 82.66 | 92.95 | 204.72 | 90.68 | 204.88 | | | 1.45 | 38172 | -1184 | 38160 | 966* |
| KOTZEBUE | KOT | 66.88 | 197.37 | 23.12 | 26.00 | 243.51 | 25.78 | 248.31 | 25.79 | 248.31 | 20.08 | 13037 | 54268 | 12245 | 4476* |
| KRAKAU (CRAKAU) | KX* | 50.05 | 19.95 | 39.95 | 41.34 | 103.52 | 44.65 | 95.37 | 44.65 | 95.35 | 1.80 | 19589 | 44210 | 19579 | 615* |
| KREMSMUNSTER | KRE | 48.06 | 14.13 | 41.94 | 42.12 | 97.16 | 46.77 | 89.98 | 46.81 | 89.89 | -.06 | 20631 | 42699 | 20631 | -22* |
| KSARA | KSA | 33.82 | 35.89 | 56.18 | 60.00 | 112.95 | 62.93 | 107.39 | 62.91 | 107.30 | 2.82 | 28879 | 34262 | 28844 | 1421* |
| KUMASI | KUM | 06.70 | 358.43 | 83.30 | 79.36 | 70.46 | 96.42 | 70.63 | | | -7.85 | 31392 | -5506 | 31098 | -4288* |
| KUTCHINO | KTC | 55.76 | 37.97 | 34.24 | 39.13 | 122.19 | 38.74 | 112.66 | 38.73 | 112.61 | 8.15 | 16756 | 48598 | 16587 | 2375* |
| KUYPER | KUY | -6.03 | 106.73 | 96.03 | 107.33 | 177.02 | 105.92 | 177.59 | | | .45 | 37452 | -23906 | 37451 | 294* |
| KZIL-AGACH | KZA | 45.37 | 78.73 | 44.63 | 54.59 | 153.75 | 49.84 | 150.53 | 49.82 | 150.52 | 5.12 | 23551 | 50209 | 23457 | 2102* |
| L AQUILA | AQU | 42.38 | 13.32 | 47.62 | 47.41 | 94.13 | 53.69 | 87.93 | 53.74 | 87.84 | -.14 | 23943 | 38845 | 23943 | -59 |
| LA MADDALENA | LMD | 41.23 | 09.40 | 48.77 | 47.75 | 89.91 | 55.18 | 84.35 | 55.17 | 84.29 | -1.38 | 24325 | 37869 | 24318 | -586* |
| LA PAZ | LPB | -16.54 | 291.90 | 106.54 | 95.21 | 2.22 | 92.38 | 2.41 | | | -1.32 | 25376 | -2518 | 25369 | -585* |
| LA QUIACA | LQA | -22.10 | 294.40 | 112.10 | 100.81 | 4.52 | 98.54 | 4.44 | 98.17 | 4.44 | -1.84 | 23584 | -6559 | 23572 | -759 |
| LANZHOU | LZH | 36.09 | 103.85 | 53.91 | 65.19 | 174.88 | 60.30 | 175.30 | 60.29 | 175.25 | -1.78 | 31598 | 42469 | 31582 | -990 |
| LAS ACACIAS | LAS | -35.01 | 302.31 | 125.01 | 113.92 | 11.38 | 111.49 | 10.12 | 111.36 | 10.07 | -3.75 | 20184 | -13821 | 20141 | -1320* |
| LAUDER | LAU | -45.04 | 169.68 | 135.04 | 139.72 | 251.36 | 142.45 | 253.60 | 142.47 | 253.57 | 23.17 | 19856 | -56690 | 18254 | 7813* |
| LAZAREV | LZV | -69.97 | 12.90 | 159.97 | 155.97 | 56.70 | 152.03 | 52.93 | 152.06 | 52.93 | -27.51 | 18687 | -37020 | 16574 | -8632* |
| LEADVILLE | LDV | 39.28 | 253.72 | 50.72 | 41.94 | 317.24 | 41.82 | 316.87 | 41.77 | 316.75 | 12.55 | 21697 | 50630 | 21179 | 4715* |
| LEIRVOGUR | LRV | 64.18 | 338.30 | 25.82 | 20.11 | 72.19 | 24.39 | 69.10 | 24.37 | 69.10 | -20.98 | 12401 | 49993 | 11579 | -4440 |
| LENINGRAD | LNN | 59.95 | 30.71 | 30.05 | 33.93 | 118.29 | 34.18 | 107.77 | 34.21 | 107.78 | 7.12 | 15216 | 49053 | 15098 | 1888 |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | COORDINATES | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| LENINGRADSKAYA | LEN | -69.50 | 159.40 | 159.50 | 164.32 | 261.96 | 168.48 | 277.62 | 168.41 | 277.02 | 251.45 | 4729 | -66109 | -1504 | -4483* |
| LERWICK | LER | 60.13 | 358.82 | 29.87 | 27.76 | 89.62 | 31.80 | 82.55 | 31.78 | 82.53 | -7.83 | 14952 | 47857 | 14812 | -2039 |
| LHASA | LSA | 29.70 | 91.15 | 60.30 | 71.10 | 163.11 | 67.15 | 162.62 | 67.18 | 162.59 | -.28 | 35250 | 34323 | 35250 | -172* |
| LISBON | LIS | 38.72 | 350.85 | 51.28 | 46.62 | 70.28 | 57.11 | 68.84 | 57.13 | 68.85 | -7.82 | 25354 | 35369 | 25118 | -3450* |
| LITTLE AMERICA | LAA | -78.18 | 197.80 | 168.18 | 163.94 | 312.23 | 163.67 | 335.07 | 163.71 | 334.72 | 104.95 | 11881 | -61168 | -3065 | 11479* |
| LOGRONO | LGR | 42.46 | 357.50 | 47.54 | 44.25 | 78.44 | 52.81 | 74.95 | 52.88 | 74.93 | -5.58 | 23551 | 38305 | 23439 | -2290* |
| LORING AFB | LOB | 46.92 | 291.88 | 43.08 | 31.78 | 2.97 | 32.05 | 10.27 | 31.96 | 10.34 | -20.79 | 16154 | 54580 | 15102 | -5734* |
| LOS ANGELES | LA* | 34.05 | 241.75 | 55.95 | 48.84 | 305.33 | 49.62 | 304.77 | 49.62 | 304.73 | 14.44 | 25182 | 42912 | 24386 | 6280* |
| LOVO | LOV | 59.35 | 17.83 | 30.65 | 32.16 | 106.75 | 34.25 | 97.00 | 34.26 | 96.98 | 1.51 | 15499 | 48027 | 15494 | 410 |
| LOVOZERO | LOZ | 67.97 | 35.02 | 22.03 | 27.21 | 127.73 | 26.24 | 115.54 | 26.24 | 115.47 | 11.72 | 11506 | 52026 | 11266 | 2337* |
| LUANDA | LUA | -8.92 | 13.17 | 98.92 | 97.47 | 81.94 | 111.05 | 82.70 | | | -9.34 | 23227 | -22792 | 22919 | -3770* |
| LUBECK | LB* | 53.87 | 10.70 | 36.13 | 35.93 | 96.76 | 39.90 | 89.02 | 39.89 | 88.96 | -1.54 | 17714 | 45394 | 17708 | -476* |
| LUKIAPANG | LKP | 31.32 | 121.04 | 58.68 | 69.81 | 190.41 | 65.66 | 192.18 | 65.65 | 192.16 | -4.57 | 33722 | 34711 | 33615 | -2687* |
| LUNPING | LNP | 25.00 | 121.17 | 65.00 | 76.11 | 190.79 | 72.37 | 191.98 | 72.36 | 191.98 | -2.86 | 36584 | 25721 | 36538 | -1825 |
| LVOV | LVV | 49.90 | 23.75 | 40.10 | 42.20 | 106.96 | 44.86 | 98.63 | 44.88 | 98.57 | 3.24 | 20077 | 44565 | 20045 | 1138 |
| LWIRO | LWI | -2.25 | 28.80 | 92.25 | 94.00 | 98.59 | 103.44 | 99.82 | | | -2.28 | 29160 | -17547 | 29137 | -1160* |
| LYNN LAKE | LYN | 56.85 | 258.93 | 33.15 | 24.04 | 316.79 | 23.05 | 319.08 | 23.00 | 318.97 | 13.47 | 9336 | 60469 | 9079 | 2175* |
| M BOUR | MBO | 14.39 | 343.04 | 75.61 | 69.09 | 56.40 | 85.95 | 58.53 | | | -12.10 | 31944 | 7220 | 31234 | -6697 |
| MACQUARIE ISLAND | MCQ | -54.50 | 158.95 | 144.50 | 150.75 | 244.40 | 154.51 | 247.37 | 154.52 | 247.40 | 28.48 | 12723 | -63768 | 11183 | 6067 |
| MADRAS | MX* | 13.07 | 80.25 | 76.93 | 86.86 | 151.44 | 85.34 | 151.84 | | | -2.21 | 40321 | 7361 | 40291 | -1555* |
| MADRID | MDD | 40.42 | 356.32 | 49.58 | 46.00 | 76.50 | 55.41 | 73.57 | 55.50 | 73.52 | -5.82 | 24609 | 36709 | 24482 | -2495* |
| MAGADAN | MGD | 60.12 | 151.02 | 29.88 | 39.04 | 211.56 | 36.68 | 218.04 | 36.70 | 218.04 | -13.18 | 18047 | 52589 | 17571 | -4117 |
| MAGALLANES | MGS | -53.20 | 289.10 | 143.20 | 131.88 | 359.60 | 127.59 | 3.02 | 127.54 | 3.03 | 15.90 | 22438 | -26116 | 21580 | 6147* |
| MAISACH | MAS | 48.20 | 11.26 | 41.80 | 41.42 | 94.47 | 46.50 | 87.61 | 46.54 | 87.56 | -1.01 | 20560 | 42587 | 20557 | -362* |
| MAITUN | MAI | 43.25 | 132.33 | 46.75 | 57.32 | 199.54 | 53.70 | 203.61 | 53.72 | 203.62 | -9.60 | 26929 | 44763 | 26552 | -4491* |
| MAJURO | MJR | 7.08 | 171.38 | 82.92 | 88.36 | 241.01 | 87.26 | 241.32 | | | 9.83 | 33771 | 3353 | 33275 | 5766* |
| MAKERSTOUN | MQ* | 55.58 | 357.48 | 34.42 | 31.72 | 84.90 | 36.66 | 79.26 | 36.72 | 79.24 | -8.11 | 16885 | 45923 | 16716 | -2382* |
| MALIYE KARMAKULY | MKL | 72.30 | 52.50 | 17.70 | 25.62 | 143.81 | 22.67 | 132.32 | 22.67 | 132.27 | 22.51 | 9090 | 54931 | 8397 | 3480* |
| MANHAY | MAB | 50.30 | 5.68 | 39.70 | 38.33 | 90.03 | 43.63 | 83.74 | 43.71 | 83.68 | -3.28 | 19480 | 43462 | 19448 | -1115* |
| MANILA | MAN | 14.58 | 120.98 | 75.42 | 86.54 | 191.02 | 83.30 | 191.55 | | | -.60 | 39320 | 10209 | 39318 | -412* |
| MAPUTO | LMM | -25.92 | 32.58 | 115.92 | 117.91 | 97.31 | 126.22 | 98.66 | 126.27 | 98.71 | -15.86 | 14011 | -27108 | 13478 | -3829 |
| MARION ISLAND | MRN | -46.88 | 37.85 | 136.88 | 139.25 | 95.86 | 141.92 | 92.03 | 141.87 | 92.09 | -36.91 | 15530 | -28837 | 12417 | -9327* |
| MARTIN DE VIVIES | AMS | -37.83 | 77.57 | 127.83 | 137.12 | 142.00 | 139.17 | 137.80 | 139.20 | 137.72 | -38.41 | 19058 | -45530 | 14934 | -11840* |
| MATOCHKIN SHAR | MSR | 73.26 | 56.40 | 16.74 | 25.16 | 147.14 | 21.88 | 136.09 | 21.88 | 136.02 | 24.82 | 8461 | 55505 | 7679 | 3552* |
| MAURITIUS | MRI | -20.09 | 57.55 | 110.09 | 116.75 | 123.97 | 120.49 | 125.06 | 120.50 | 125.06 | -17.73 | 21484 | -29691 | 20464 | -6543* |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| MAWSON | MAW | -67.61 | 62.88 | 157.61 | 163.30 | 105.07 | 160.24 | 89.38 | 160.23 | 89.30 | -63.09 | 18432 | -46784 | 8340 | -16437 |
| MCMURDO | MCM | -77.85 | 166.70 | 167.85 | 168.81 | 294.30 | 169.84 | 328.08 | 169.92 | 327.04 | 146.00 | 9171 | -63239 | -7603 | 5128* |
| MEANOOK | MEA | 54.62 | 246.67 | 35.38 | 28.05 | 302.95 | 27.61 | 303.33 | 27.54 | 303.16 | 22.14 | 13488 | 58501 | 12493 | 5084 |
| MELBOURNE | MEL | -37.83 | 144.98 | 127.83 | 136.70 | 221.82 | 138.97 | 221.42 | 139.03 | 221.45 | 11.21 | 21489 | -56855 | 21079 | 4178* |
| MELVILLE AFB | MEV | 53.28 | 299.47 | 36.72 | 25.64 | 13.71 | 27.10 | 22.51 | 27.09 | 22.53 | -29.53 | 13928 | 54897 | 12119 | -6865* |
| MEMAMBETSU | MMB | 43.91 | 144.19 | 46.09 | 55.71 | 209.68 | 53.49 | 214.34 | 53.49 | 214.35 | -8.29 | 26495 | 41352 | 26218 | -3822 |
| MEXICO | TE* | 19.42 | 260.92 | 70.58 | 60.78 | 328.75 | 61.36 | 328.25 | | | 7.75 | 31151 | 20941 | 30866 | 4201* |
| MIDWAY | MDY | 28.21 | 182.62 | 61.79 | 65.61 | 247.73 | 65.25 | 248.69 | 65.28 | 248.61 | 10.07 | 26969 | 24708 | 26554 | 4716* |
| MINSK | MNK | 54.50 | 27.88 | 35.50 | 38.58 | 112.82 | 39.91 | 103.49 | 40.29 | 102.15 | 5.29 | 17931 | 46832 | 17854 | 1655 |
| MIRNY | MIR | -66.55 | 93.02 | 156.55 | 167.01 | 149.64 | 167.19 | 122.03 | 167.19 | 121.63 | -83.93 | 14000 | -58727 | 1480 | -13922 |
| MISALLAT | MLT | 29.52 | 30.89 | 60.48 | 63.29 | 107.18 | 68.68 | 102.24 | 68.76 | 102.21 | 1.98 | 31299 | 28657 | 31280 | 1082 |
| MIYAZU | MIU | 35.32 | 135.12 | 54.68 | 64.93 | 203.13 | 60.62 | 205.08 | 62.01 | 206.01 | -6.86 | 30813 | 35616 | 30592 | -3680* |
| MIZUSAWA | MIZ | 39.01 | 141.08 | 50.99 | 60.85 | 207.69 | 58.42 | 211.60 | 58.42 | 211.60 | -7.40 | 28858 | 37235 | 28617 | -3717 |
| MOCA | MFP | 3.34 | 8.66 | 86.66 | 84.59 | 79.92 | 99.98 | 79.79 | | | -5.77 | 30892 | -10470 | 30735 | -3106* |
| MODIIM | MOD | 31.93 | 34.98 | 58.07 | 61.69 | 111.64 | 65.29 | 106.37 | 65.28 | 106.32 | 2.52 | 29975 | 32156 | 29946 | 1318* |
| MOGADISCIO | MOG | 02.03 | 45.35 | 87.97 | 92.89 | 115.68 | 97.53 | 116.65 | | | -.78 | 33547 | -9945 | 33544 | -457* |
| MOLODEZHNAYA | MOL | -67.67 | 45.85 | 157.67 | 160.04 | 87.20 | 156.56 | 77.12 | 156.50 | 77.20 | -50.63 | 19020 | -41650 | 12064 | -14703 |
| MONTE CAPELLINO | MCP | 44.55 | 8.96 | 45.45 | 44.47 | 90.71 | 50.86 | 84.77 | 50.93 | 84.68 | -1.63 | 22505 | 40208 | 22496 | -640* |
| MOSCOW | MOS | 55.48 | 37.31 | 34.52 | 39.30 | 121.49 | 39.03 | 112.01 | 39.01 | 111.97 | 7.73 | 17294 | 48636 | 17137 | 2327 |
| MOULD BAY | MBC | 76.20 | 240.60 | 13.80 | 10.60 | 258.34 | 9.25 | 267.03 | 9.19 | 266.53 | 60.57 | 2602 | 58258 | 1278 | 2266 |
| MT WILSON | MWC | 34.22 | 241.93 | 55.78 | 48.65 | 305.48 | 49.42 | 304.92 | 49.41 | 304.87 | 14.47 | 25106 | 43121 | 24310 | 6273* |
| MUNICH | MNH | 48.15 | 11.61 | 41.85 | 41.54 | 94.77 | 46.59 | 87.88 | 46.62 | 87.84 | -.89 | 20586 | 42581 | 20584 | -320* |
| MUNTINLUPA | MUT | 14.38 | 121.02 | 75.62 | 86.74 | 191.07 | 83.51 | 191.58 | | | -.63 | 39221 | 9691 | 39219 | -432 |
| MURCHISON BAY | MUB | 80.50 | 18.25 | 9.50 | 14.57 | 138.99 | 13.38 | 121.50 | 13.37 | 122.08 | .89 | 6754 | 54234 | 6753 | 105* |
| MURMANSK | MMK | 68.25 | 33.08 | 21.75 | 26.65 | 126.54 | 25.88 | 114.21 | 25.88 | 114.13 | 12.28 | 11819 | 51547 | 11549 | 2514 |
| NAGYCENK | NCK | 47.63 | 16.72 | 42.37 | 43.03 | 99.43 | 47.34 | 92.04 | 47.39 | 91.95 | .77 | 21126 | 42492 | 21124 | 285 |
| NAIROBI | NAI | -1.33 | 36.82 | 91.33 | 94.62 | 106.65 | 101.69 | 107.87 | | | -1.04 | 30542 | -15546 | 30537 | -554* |
| NANORTALIK 1 | NN* | 60.13 | 314.73 | 29.87 | 20.16 | 37.89 | 23.66 | 43.98 | 23.65 | 44.21 | -33.89 | 12712 | 52930 | 10552 | -7088* |
| NANTES | NTS | 47.25 | 358.44 | 42.75 | 39.83 | 81.37 | 46.75 | 77.03 | 46.79 | 76.98 | -5.87 | 21024 | 41583 | 20914 | -2150* |
| NARSSARSSUAQ | NAQ | 61.10 | 314.80 | 28.90 | 19.23 | 38.70 | 22.71 | 44.66 | 22.71 | 44.85 | -34.19 | 12078 | 53850 | 9991 | -6787* |
| NERTSCHINSK | NK* | 51.32 | 119.62 | 38.68 | 49.87 | 188.17 | 44.81 | 191.51 | 44.81 | 191.47 | -9.65 | 20915 | 54754 | 20619 | -3506* |
| NEUFAHRWASSER | NF* | 54.42 | 18.65 | 35.58 | 36.95 | 104.47 | 39.68 | 95.73 | 39.69 | 95.64 | 1.61 | 17431 | 46116 | 17424 | 490* |
| NEW AALESUND | NAL | 78.92 | 11.93 | 11.08 | 14.70 | 131.33 | 14.27 | 113.87 | 14.22 | 114.39 | -3.78 | 7458 | 53652 | 7442 | -492* |
| NEW YEARS ISLAND | NYI | -54.65 | 295.85 | 144.65 | 133.38 | 4.97 | 129.03 | 7.26 | 128.91 | 7.26 | 11.71 | 21851 | -25866 | 21396 | 4435* |
| NEWPORT | NEW | 48.26 | 242.88 | 41.74 | 34.79 | 301.85 | 34.81 | 301.39 | 34.76 | 301.28 | 20.22 | 18196 | 54513 | 17074 | 6290 |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| NICE | NCE | 43.72 | 7.30 | 46.28 | 44.95 | 88.76 | 51.85 | 83.21 | 51.91 | 83.12 | -2.13 | 22950 | 39548 | 22934 | -853* |
| NIEMEGK | NGK | 52.07 | 12.68 | 37.93 | 38.01 | 97.67 | 42.03 | 90.01 | 42.07 | 89.92 | -.58 | 18825 | 44570 | 18824 | -192 |
| NITSANIM | NCK | 31.73 | 34.60 | 58.27 | 61.81 | 111.23 | 65.57 | 105.99 | 65.53 | 105.92 | 2.47 | 30064 | 31918 | 30036 | 1296* |
| NIZHNEDEVITSK | NNV | 51.52 | 38.37 | 38.48 | 43.27 | 120.70 | 43.17 | 111.95 | 43.18 | 111.95 | 6.81 | 18855 | 46874 | 18722 | 2236* |
| NORD | NRD | 81.60 | 343.24 | 8.40 | 9.25 | 132.88 | 9.33 | 109.45 | 9.25 | 110.32 | -30.72 | 5978 | 54388 | 5139 | -3054* |
| NORILSK | NOK | 69.40 | 88.10 | 20.60 | 31.40 | 165.67 | 26.05 | 161.43 | 26.06 | 161.34 | 18.80 | 7619 | 59374 | 7213 | 2455* |
| NORMAN WELLS | NOW | 64.90 | 234.50 | 25.10 | 20.68 | 279.83 | 20.34 | 282.02 | 20.29 | 281.81 | 36.79 | 8998 | 58583 | 7206 | 5389* |
| NORTH POLE 6 | NPF | 84.00 | 94.00 | 6.00 | 17.18 | 174.54 | 13.14 | 168.50 | 13.20 | 168.66 | 45.00 | 2718 | 57166 | 1922 | 1922* |
| NORTH POLE 7 | NPG | 85.00 | 268.12 | 5.00 | 6.92 | 195.37 | 3.96 | 185.14 | 4.09 | 185.28 | 123.22 | 1928 | 56370 | -1056 | 1613* |
| NORTH POLE 8 | NPH | 77.00 | 189.00 | 13.00 | 18.69 | 223.64 | 16.65 | 230.34 | 16.62 | 230.23 | 18.94 | 6593 | 56892 | 6236 | 2140* |
| NORTH POLE 10 | NPJ | 77.00 | 166.38 | 13.00 | 21.38 | 211.09 | 18.49 | 217.32 | 18.49 | 217.44 | 1.28 | 6700 | 57272 | 6698 | 150* |
| NORTH POLE 12 | NPL | 79.00 | 187.00 | 11.00 | 17.38 | 218.57 | 14.92 | 225.01 | 14.93 | 224.86 | 19.90 | 5271 | 57118 | 4956 | 1794* |
| NORTH POLE 13 | NPM | 81.00 | 165.00 | 9.00 | 18.01 | 204.62 | 14.68 | 209.29 | 14.69 | 209.16 | 7.74 | 3936 | 57502 | 3900 | 530* |
| NORTHWAY | NRW | 63.02 | 218.20 | 26.98 | 25.56 | 265.62 | 25.77 | 267.80 | 25.84 | 267.59 | 30.36 | 13090 | 55601 | 11295 | 6616* |
| NORUSUND | NOR | 77.00 | 15.55 | 13.00 | 16.56 | 128.06 | 16.30 | 111.89 | 16.25 | 112.23 | -0.36 | 8233 | 53200 | 8233 | -52* |
| NORWAY HOUSE | NHO | 53.98 | 262.17 | 36.02 | 26.43 | 322.51 | 25.39 | 324.82 | 25.33 | 324.70 | 8.84 | 10895 | 60073 | 10766 | 1674* |
| NORWAY STATION | NWS | -70.50 | 357.47 | 160.50 | 154.10 | 45.08 | 150.05 | 43.19 | 150.03 | 43.22 | -17.67 | 18912 | -36508 | 18020 | -5740* |
| NOVOKAZALINSK | NKK | 45.80 | 62.10 | 44.20 | 52.38 | 139.54 | 49.14 | 133.99 | 49.14 | 134.01 | 6.42 | 22681 | 47490 | 22539 | 2536 |
| NOVOLAZAREVSKAYA | NVL | -70.77 | 11.83 | 160.77 | 156.49 | 54.96 | 152.37 | 51.51 | 152.39 | 51.53 | -27.16 | 18640 | -37470 | 16584 | -8510 |
| NOVOSIBIRSK | NVS | 55.03 | 82.90 | 34.97 | 45.34 | 158.77 | 39.93 | 155.02 | 39.93 | 155.00 | 8.44 | 17269 | 56457 | 17082 | 2535 |
| NUMTO | NMT | 63.50 | 71.40 | 26.50 | 36.04 | 152.03 | 31.40 | 145.00 | 31.41 | 144.92 | 18.47 | 12035 | 56605 | 11415 | 3813* |
| NURMIJARVI | NUR | 60.51 | 24.66 | 29.49 | 32.34 | 113.51 | 33.38 | 103.05 | 33.37 | 103.04 | 4.21 | 15202 | 49039 | 15161 | 1116 |
| NYDA | NDA | 66.60 | 73.00 | 23.40 | 33.15 | 154.34 | 28.46 | 147.22 | 28.46 | 147.11 | 21.33 | 10284 | 57300 | 9580 | 3741* |
| O GYALLA | OGY | 47.88 | 18.19 | 42.12 | 43.08 | 100.92 | 47.10 | 93.34 | 47.13 | 93.25 | 1.16 | 20727 | 42907 | 20723 | 420* |
| OASIS | OAS | -66.30 | 100.72 | 156.30 | 167.36 | 163.51 | 168.86 | 134.51 | 168.90 | 134.48 | -89.05 | 11985 | -60536 | 199 | -11983* |
| ODESSA | ODE | 46.78 | 30.88 | 43.22 | 46.51 | 112.23 | 48.34 | 104.26 | 48.36 | 104.18 | 2.28 | 21435 | 43532 | 21418 | 855 |
| ONAGAWA | ONW | 38.43 | 141.47 | 51.57 | 61.39 | 208.11 | 59.00 | 211.92 | 59.04 | 211.94 | -7.27 | 29020 | 36935 | 28787 | -3672* |
| ORANGE BAY | OB* | -55.52 | 291.92 | 145.52 | 134.19 | 1.83 | 129.77 | 5.11 | 129.71 | 5.08 | 14.93 | 22326 | -27329 | 21572 | 5752* |
| ORCADAS DEL SUR | ORC | -60.73 | 315.22 | 150.73 | 140.24 | 19.30 | 136.31 | 19.27 | 136.26 | 19.23 | 1.88 | 20327 | -28905 | 20316 | 667* |
| OSLO | OSL | 59.91 | 10.72 | 30.09 | 30.28 | 100.74 | 33.15 | 91.62 | 33.17 | 91.63 | -2.01 | 14967 | 47794 | 14958 | -525* |
| OTOMARI | OTM | 46.65 | 142.77 | 43.35 | 53.12 | 208.00 | 50.61 | 212.99 | 50.62 | 213.02 | -9.81 | 25203 | 44444 | 24834 | -4294* |
| OTTAWA | OTT | 45.40 | 284.45 | 44.60 | 33.34 | 353.42 | 32.80 | 359.08 | 32.68 | 359.10 | -14.03 | 16658 | 55605 | 16161 | -4040 |
| P. TUNGUSKA | POD | 61.60 | 90.00 | 28.40 | 39.24 | 165.39 | 33.50 | 162.46 | 33.53 | 162.39 | 9.65 | 12418 | 59223 | 12242 | 2083 |
| PALAU | PLA | 7.33 | 134.48 | 82.67 | 92.95 | 204.70 | 90.68 | 204.86 | | | 1.45 | 38174 | -1184 | 38162 | 966* |
| PALMYRA ISLAND | PAI | 05.88 | 197.92 | 84.12 | 84.57 | 267.20 | 83.45 | 267.45 | | | 9.68 | 32308 | 7926 | 31848 | 5432* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PAMATAI | PPT | -17.57 | 210.43 | 107.57 | 105.10 | 284.08 | 106.08 | 284.32 | | | 11.21 | 31375 | -18907 | 30776 | 6103 |
| PANAGYURISHTE | PAG | 42.52 | 24.18 | 47.48 | 49.39 | 104.52 | 53.38 | 97.44 | 53.40 | 97.34 | 1.86 | 23721 | 39784 | 23708 | 773 |
| PARAMARIBO | PAB | 5.81 | 304.78 | 84.19 | 73.28 | 15.78 | 73.42 | 19.04 | | | -14.48 | 28493 | 15430 | 27588 | -7124* |
| PARC ST. MAUR | PSM | 48.82 | 2.48 | 41.18 | 39.12 | 86.15 | 45.18 | 80.72 | 45.24 | 80.65 | -4.41 | 20231 | 42563 | 20171 | -1556* |
| PATRICK | PAT | 28.21 | 279.39 | 61.79 | 50.68 | 348.35 | 49.66 | 350.21 | 49.61 | 350.18 | -2.52 | 24885 | 43258 | 24861 | -1094* |
| PELLY BAY | PEB | 68.53 | 270.48 | 21.47 | 11.37 | 322.55 | 10.82 | 333.76 | 10.79 | 333.38 | -31.72 | 2592 | 59389 | 2205 | -1363* |
| PENANG | PNN | 4.47 | 100.15 | 85.53 | 96.70 | 170.52 | 95.17 | 171.04 | | | -.14 | 40768 | -6075 | 40768 | -100* |
| PENDELI | PEG | 38.05 | 23.86 | 51.95 | 53.66 | 102.80 | 58.82 | 96.45 | 58.82 | 96.38 | 1.77 | 26243 | 36673 | 26230 | 811* |
| PERPIGNAN | PER | 42.70 | 2.88 | 47.30 | 45.06 | 83.99 | 52.94 | 79.33 | 53.00 | 79.28 | -3.58 | 23476 | 38611 | 23430 | -1466* |
| PETROPAVLOVSK | PET | 52.90 | 158.43 | 37.10 | 45.24 | 219.76 | 44.18 | 225.37 | 43.95 | 225.50 | -5.30 | 22037 | 45831 | 21943 | -2038 |
| PETSAMO | PTS | 69.53 | 31.25 | 20.47 | 25.21 | 126.47 | 24.53 | 113.71 | 24.53 | 113.66 | 10.14 | 10963 | 52070 | 10792 | 1930* |
| PHILADELPHIA | PH* | 39.97 | 284.82 | 50.03 | 38.77 | 354.14 | 38.13 | 358.96 | 37.99 | 358.99 | -11.04 | 19244 | 52312 | 18888 | -3685* |
| PILAR | PIL | -31.67 | 296.12 | 121.67 | 110.40 | 5.91 | 107.70 | 5.66 | 107.45 | 5.70 | .29 | 21416 | -11985 | 21416 | 109 |
| PIONERSKAYA | PIO | -69.73 | 95.50 | 159.73 | 170.32 | 149.87 | 169.82 | 113.25 | 169.86 | 112.87 | -91.84 | 13534 | -58492 | -435 | -13527* |
| PITLEKAJ | PL* | 67.08 | 186.62 | 22.92 | 27.63 | 234.91 | 27.06 | 240.58 | 27.08 | 240.59 | 12.21 | 13578 | 53737 | 13271 | 2872* |
| PLAISANCE | PLS | -20.43 | 57.67 | 110.43 | 117.10 | 124.02 | 120.84 | 125.06 | 120.85 | 125.06 | -18.17 | 21343 | -29865 | 20279 | -6656* |
| PLATEAU | PTU | -79.25 | 40.50 | 169.25 | 167.52 | 53.79 | 161.57 | 51.11 | 161.58 | 51.13 | -53.83 | 18106 | -47944 | 10686 | -14616* |
| POLA | POL | 44.86 | 13.85 | 45.14 | 45.13 | 95.57 | 50.58 | 88.96 | 50.65 | 88.84 | -.13 | 22340 | 40759 | 22340 | -51* |
| PORT ALFRED | CZT | -46.43 | 51.87 | 136.43 | 141.50 | 110.56 | 143.25 | 105.45 | 143.22 | 105.44 | -42.44 | 16295 | -33528 | 12024 | -10998 |
| PORT MORESBY | PMG | -9.41 | 147.15 | 99.41 | 108.27 | 219.29 | 107.93 | 219.01 | | | 6.47 | 35971 | -23643 | 35742 | 4056 |
| PORT-AUX-FRANCAI | KGL | -49.35 | 70.20 | 139.35 | 147.43 | 129.82 | 148.41 | 121.31 | 148.44 | 121.31 | -51.40 | 18466 | -43814 | 11521 | -14432* |
| POTSDAM | POT | 52.38 | 13.06 | 37.62 | 37.79 | 98.20 | 41.70 | 90.44 | 41.73 | 90.35 | -.51 | 18432 | 44842 | 18431 | -164* |
| PRICE | PCU | 39.60 | 249.17 | 50.40 | 42.26 | 312.00 | 42.39 | 311.36 | 42.31 | 311.39 | 14.38 | 22021 | 49882 | 21331 | 5469* |
| PRUHONICE | PRU | 49.99 | 14.55 | 40.01 | 40.35 | 98.42 | 44.50 | 90.86 | 44.56 | 90.80 | .06 | 19629 | 43764 | 19629 | 21* |
| QUETTA | QUE | 30.19 | 66.95 | 59.81 | 68.41 | 140.96 | 65.75 | 138.71 | 65.76 | 138.72 | 1.28 | 32802 | 33512 | 32794 | 738 |
| RANKIN INLET | RIT | 62.80 | 267.67 | 27.20 | 17.19 | 324.72 | 16.34 | 331.11 | 16.26 | 331.00 | -5.35 | 4914 | 60526 | 4893 | -458* |
| REGENSBERG | REG | 47.48 | 8.44 | 42.52 | 41.56 | 91.42 | 47.22 | 85.11 | 47.28 | 85.04 | -1.97 | 20938 | 42012 | 20926 | -720* |
| RESOLUTE BAY | RES | 74.70 | 265.10 | 15.30 | 6.82 | 292.86 | 6.08 | 312.48 | 5.95 | 310.77 | -58.18 | 865 | 58556 | 456 | -735 |
| RIO DE JANEIRO | RDJ | -22.91 | 316.83 | 112.91 | 102.75 | 25.60 | 105.42 | 23.05 | 105.38 | 22.99 | -19.30 | 20856 | -11593 | 19684 | -6893* |
| ROBURENT | ROB | 44.30 | 7.89 | 45.70 | 44.51 | 89.55 | 51.13 | 83.83 | 51.20 | 83.74 | -1.97 | 22637 | 39977 | 22624 | -778* |
| ROI BAUDOUIN | RBD | -70.43 | 24.30 | 160.43 | 158.32 | 64.66 | 154.18 | 59.41 | 154.17 | 59.49 | -35.61 | 18760 | -38692 | 15252 | -10923* |
| ROSTOCK | RO* | 54.10 | 12.15 | 35.90 | 35.99 | 98.27 | 39.70 | 90.30 | 39.72 | 90.22 | -.95 | 17601 | 45568 | 17599 | -292* |
| RUDE SKOV | RSV | 55.84 | 12.46 | 34.16 | 34.41 | 99.57 | 37.73 | 91.22 | 37.77 | 91.14 | -.07 | 17069 | 46304 | 17067 | -252 |
| SABHAWALA | SAB | 30.36 | 77.80 | 59.64 | 69.42 | 150.94 | 66.00 | 149.52 | 66.04 | 149.54 | .38 | 33863 | 34446 | 33862 | 227 |
| SACHS HARBOUR | SAH | 72.00 | 235.00 | 18.00 | 14.61 | 267.47 | 13.75 | 272.94 | 13.67 | 272.53 | 47.73 | 5130 | 58397 | 3451 | 3796* |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| SAN FERNANDO | SFS | 36.46 | 353.80 | 53.54 | 49.36 | 72.62 | 60.69 | 70.71 | 60.82 | 70.69 | -6.46 | 26593 | 33248 | 26424 | -2992* |
| SAN JOSE LAJAS | SJL | 23.02 | 277.35 | 66.98 | 55.96 | 346.37 | 55.11 | 347.28 | 55.02 | 347.20 | -.00 | 26934 | 37994 | 26934 | 0* |
| SAN JUAN | SJG | 18.11 | 293.85 | 71.89 | 60.61 | 4.64 | 60.14 | 8.22 | | | -9.60 | 27299 | 31010 | 26916 | -4554 |
| SAN PABLO-TOLEDO | SPT | 39.55 | 355.65 | 50.45 | 46.71 | 75.53 | 56.51 | 72.85 | 56.63 | 72.79 | -6.00 | 25054 | 35987 | 24917 | -2619* |
| SANAE | SNA | -70.33 | 357.51 | 160.33 | 153.95 | 45.27 | 149.94 | 43.32 | 149.93 | 43.45 | -17.81 | 18999 | -36266 | 18088 | -5813 |
| SANTA CRUZ | SZT | 28.48 | 343.72 | 61.52 | 55.35 | 59.98 | 70.15 | 61.38 | 71.64 | 61.39 | -10.24 | 29575 | 25436 | 29104 | -5258* |
| SANTIAGO | SNT | -33.45 | 289.30 | 123.45 | 112.13 | 359.73 | 109.04 | .81 | 109.00 | .82 | 7.14 | 22161 | -13782 | 21989 | 2754* |
| SAO JOSE COMPOS | SJB | -23.20 | 314.13 | 113.20 | 102.83 | 23.04 | 104.63 | 20.72 | 104.58 | 20.65 | -17.60 | 21081 | -10848 | 20094 | -6374* |
| SAO MIGUEL | SMG | 37.77 | 334.35 | 52.23 | 44.72 | 52.30 | 54.21 | 55.51 | 54.26 | 55.59 | -14.40 | 25013 | 36250 | 24227 | -6220* |
| SCORESBYSUND | SCO | 70.48 | 338.03 | 19.52 | 14.61 | 82.62 | 18.02 | 75.39 | 17.25 | 71.96 | -30.95 | 9871 | 52336 | 8460 | -5070* |
| SCOTT BASE | SBA | -77.85 | 166.78 | 167.85 | 168.80 | 294.35 | 169.83 | 328.07 | 169.90 | 327.04 | 145.87 | 9174 | -63237 | -7594 | 5147* |
| SEDDIN | SED | 52.28 | 13.01 | 37.72 | 37.89 | 98.09 | 41.82 | 90.36 | 41.84 | 90.27 | -.53 | 18482 | 44792 | 18481 | -171* |
| SEOUL | SYO | 38.58 | 127.05 | 51.42 | 62.29 | 195.36 | 58.30 | 198.43 | 58.30 | 198.45 | -7.64 | 29561 | 41729 | 29299 | -3930* |
| SEYKHA | SEY | 70.10 | 72.50 | 19.90 | 29.70 | 155.51 | 25.16 | 147.81 | 25.15 | 147.71 | 25.14 | 8620 | 57419 | 7803 | 3662* |
| SHESHAN | SSH | 31.10 | 121.19 | 58.90 | 70.03 | 190.54 | 65.90 | 192.31 | 65.89 | 192.29 | -4.40 | 33711 | 34283 | 33611 | -2590 |
| SHILLONG | SHL | 25.57 | 91.88 | 64.43 | 75.27 | 163.51 | 71.79 | 163.22 | 71.81 | 163.22 | -.75 | 37468 | 27424 | 37465 | -490* |
| SIMFEROPOL | SIM | 44.83 | 34.07 | 45.17 | 48.97 | 114.44 | 50.46 | 106.84 | 50.47 | 106.77 | 4.33 | 22423 | 42770 | 22359 | 1693* |
| SIMOSATO | SSO | 33.58 | 135.94 | 56.42 | 66.70 | 203.74 | 63.83 | 206.67 | 63.84 | 206.71 | -6.20 | 31489 | 33385 | 31305 | -3401* |
| SINGAPORE | SG* | 1.28 | 103.85 | 88.72 | 99.98 | 174.17 | 98.20 | 174.68 | | | .32 | 39857 | -12780 | 39856 | 223* |
| SITKA | SIT | 57.06 | 224.68 | 32.94 | 29.77 | 277.09 | 30.18 | 277.77 | 30.17 | 277.59 | 27.53 | 15877 | 54802 | 14078 | 7341 |
| SLUTZK | SLU | 59.69 | 30.49 | 30.31 | 34.14 | 117.94 | 34.46 | 107.48 | 34.49 | 107.49 | 6.92 | 14999 | 49120 | 14890 | 1807* |
| SODANKYLA | SOD | 67.37 | 26.63 | 22.63 | 26.40 | 120.76 | 26.44 | 108.54 | 26.44 | 108.50 | 6.56 | 11932 | 50683 | 11854 | 1365 |
| SOUTH GEORGIA | SGE | -54.28 | 323.52 | 144.28 | 134.50 | 27.19 | 132.39 | 24.33 | 132.36 | 24.26 | -8.72 | 18227 | -24251 | 18016 | -2764 |
| SOUTH POLE | SPA | -90.00 | 000.00 | 180.00 | 168.67 | .04 | 163.99 | 19.51 | 163.80 | 18.14 | -27.58 | 16006 | -54650 | 14187 | -7411* |
| SPITZBERGEN | SPB | 78.50 | 15.10 | 11.50 | 15.44 | 131.69 | 14.88 | 114.70 | 14.85 | 115.20 | -1.05 | 7622 | 53608 | 7621 | -140* |
| SREDNIKAN | SRE | 62.44 | 152.31 | 27.56 | 36.63 | 211.74 | 34.20 | 218.30 | 34.26 | 218.36 | -10.43 | 16423 | 53575 | 16152 | -2973* |
| SSAGASTYR | GY* | 73.38 | 126.60 | 16.62 | 27.64 | 190.39 | 22.96 | 193.56 | 22.96 | 193.60 | -13.65 | 6386 | 59377 | 6206 | -1507* |
| ST HELIER | STH | 49.19 | 357.91 | 40.81 | 37.86 | 81.72 | 44.26 | 77.21 | 44.33 | 77.17 | -6.45 | 20020 | 42730 | 19893 | -2249* |
| ST JOHNS | STJ | 47.60 | 307.32 | 42.40 | 31.78 | 22.94 | 34.52 | 30.86 | 34.50 | 31.07 | -24.90 | 18375 | 50133 | 16666 | -7738 |
| ST PETERSBURG | LN* | 59.93 | 30.33 | 30.07 | 33.88 | 117.97 | 34.19 | 107.45 | 34.21 | 107.47 | 6.94 | 14886 | 49191 | 14777 | 1799* |
| STARA DALA | STA | 47.88 | 18.19 | 42.12 | 43.08 | 100.92 | 47.10 | 93.34 | 47.12 | 93.27 | 1.17 | 20722 | 42913 | 20718 | 423* |
| STETTIN-ZABELSDO | SZA | 53.45 | 14.57 | 36.55 | 37.07 | 100.17 | 40.55 | 92.04 | 40.59 | 91.94 | .04 | 17907 | 45420 | 17907 | 13* |
| STONYHURST | STO | 53.85 | 357.53 | 36.15 | 33.37 | 83.86 | 38.68 | 78.60 | 38.72 | 78.56 | -7.64 | 17705 | 45140 | 17548 | -2354* |
| SUKKERTOPPEN | SKT | 65.42 | 307.10 | 24.58 | 14.18 | 30.73 | 17.01 | 38.60 | 16.92 | 38.61 | -43.32 | 9445 | 55146 | 6872 | -6480* |
| SURLARI | SUA | 44.68 | 26.25 | 45.32 | 47.68 | 107.21 | 50.79 | 99.69 | 50.82 | 99.60 | 2.81 | 22725 | 41607 | 22698 | 1117 |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SVERDLOVSK | SVD | 56.73 | 61.07 | 33.27 | 41.54 | 141.69 | 37.99 | 134.02 | 37.97 | 134.01 | 13.10 | 16136 | 52743 | 15716 | 3657* |
| SWIDER | SWI | 52.12 | 21.25 | 37.88 | 39.62 | 105.68 | 42.27 | 97.11 | 42.34 | 97.06 | 2.36 | 18542 | 45314 | 18526 | 764* |
| SYDNEY | SN* | -33.88 | 151.18 | 123.88 | 131.95 | 227.81 | 133.89 | 227.82 | 133.92 | 227.81 | 12.33 | 24624 | -52530 | 24056 | 5258* |
| SYOWA STATION | SYO | -69.01 | 39.59 | 159.01 | 159.96 | 79.39 | 156.12 | 70.88 | 156.11 | 70.83 | -46.41 | 18937 | -40597 | 13056 | -13716 |
| TACUBAYA | TAC | 19.41 | 260.81 | 70.59 | 60.80 | 328.63 | 61.39 | 328.13 | | | 7.65 | 29495 | 31769 | 29232 | 3926* |
| TAHITI | TAH | -17.56 | 210.39 | 107.56 | 105.10 | 284.03 | 106.07 | 284.28 | | | 12.25 | 32233 | -19016 | 31499 | 6839* |
| TAIPEI | TAP | 25.04 | 121.51 | 64.96 | 76.07 | 191.11 | 72.34 | 192.33 | 72.32 | 192.32 | -2.99 | 36473 | 26012 | 36423 | -1902* |
| TALARA | TAL | -04.63 | 278.70 | 94.63 | 83.52 | 349.07 | 83.06 | 349.11 | | | 4.44 | 29225 | 7385 | 29137 | 2262* |
| TALKEETNA | TLK | 62.30 | 209.90 | 27.70 | 27.82 | 258.59 | 28.22 | 261.21 | 28.20 | 261.19 | 26.08 | 14619 | 53892 | 13131 | 6427* |
| TAMANRASSET | TAM | 22.79 | 5.53 | 67.21 | 64.93 | 80.86 | 79.25 | 78.48 | 86.02 | 78.39 | 3.28 | 32897 | 17263 | 32843 | 1884 |
| TAMBEY | TMB | 71.50 | 71.80 | 18.50 | 28.28 | 155.76 | 23.82 | 147.73 | 23.84 | 147.63 | 26.71 | 8049 | 57340 | 7190 | 3618* |
| TANANARIVE | TAN | -18.92 | 47.55 | 108.92 | 113.88 | 113.95 | 119.40 | 115.93 | | | -13.28 | 19579 | -27232 | 19055 | -4497* |
| TANGERANG | TNG | -6.17 | 106.63 | 96.17 | 107.46 | 176.91 | 106.08 | 177.48 | | | .37 | 37307 | -23904 | 37306 | 243 |
| TASHKENT | TKT | 41.33 | 69.62 | 48.67 | 57.69 | 145.18 | 53.90 | 141.40 | 53.89 | 141.40 | 4.57 | 25804 | 45303 | 25722 | 2060 |
| TASUISAK | AJ* | 65.62 | 322.45 | 24.38 | 16.03 | 54.24 | 19.88 | 56.09 | 19.88 | 56.21 | -35.00 | 11044 | 52691 | 9047 | -6335* |
| TATUOCA | TTB | -1.21 | 311.49 | 91.21 | 80.71 | 22.19 | 81.30 | 24.42 | | | -17.85 | 27758 | 5656 | 26421 | -8512 |
| TBILISI | TFS | 42.09 | 44.71 | 47.91 | 53.46 | 123.23 | 53.17 | 116.61 | 53.16 | 116.58 | 5.00 | 24161 | 42108 | 24069 | 2108 |
| TEHRAN | TEH | 35.74 | 51.38 | 54.26 | 60.75 | 127.73 | 59.79 | 122.90 | 59.77 | 122.90 | 3.53 | 28179 | 38189 | 28126 | 1735* |
| TEOLOYUCAN | TEO | 19.75 | 260.82 | 70.25 | 60.46 | 328.60 | 61.03 | 328.11 | | | 7.65 | 29397 | 32185 | 29135 | 3913* |
| TEVRIZ | TEV | 57.50 | 72.40 | 32.50 | 42.02 | 150.97 | 37.33 | 144.97 | 37.31 | 144.93 | 13.33 | 15432 | 55284 | 15016 | 3558* |
| THOMPSON | TMP | 55.72 | 262.12 | 34.28 | 24.73 | 321.60 | 23.72 | 324.30 | 23.63 | 324.15 | 8.98 | 9694 | 60430 | 9575 | 1513* |
| THULE | THL | 77.48 | 290.83 | 12.52 | 1.23 | 12.65 | 4.00 | 38.76 | 3.75 | 38.80 | -74.46 | 3921 | 56688 | 1050 | -3778 |
| THULE AFB | THU | 76.55 | 291.17 | 13.45 | 2.16 | 19.81 | 4.71 | 34.24 | 4.51 | 33.83 | -73.03 | 4165 | 56403 | 1216 | -3984* |
| TIHANY | THY | 46.90 | 17.89 | 43.10 | 43.96 | 100.24 | 48.22 | 92.85 | 48.27 | 92.77 | 1.12 | 21482 | 42183 | 21478 | 423 |
| TIKHAYA BAY | TKH | 80.33 | 52.80 | 9.67 | 18.46 | 153.64 | 15.34 | 141.11 | 15.42 | 141.34 | 26.49 | 5866 | 55749 | 5250 | 2616* |
| TIXIE BAY | TIK | 71.58 | 129.00 | 18.42 | 29.34 | 192.37 | 24.71 | 196.28 | 24.74 | 196.33 | -16.50 | 7896 | 59528 | 7570 | -2243 |
| TOKYO | TOK | 35.69 | 139.75 | 54.31 | 64.28 | 206.93 | 61.82 | 210.34 | 61.73 | 210.30 | -6.58 | 30256 | 34646 | 30057 | -3467* |
| TOLEDO | TOL | 39.88 | 355.95 | 50.12 | 46.45 | 75.95 | 56.09 | 73.17 | 56.21 | 73.10 | -5.76 | 25121 | 36042 | 24994 | -2523 |
| TOMSK | TMK | 56.47 | 84.93 | 33.53 | 44.06 | 160.63 | 38.54 | 157.11 | 38.52 | 157.09 | 9.10 | 15737 | 57253 | 15539 | 2489* |
| TOOLANGI | TOO | -37.53 | 145.47 | 127.53 | 136.34 | 222.30 | 138.58 | 221.94 | 138.64 | 221.97 | 11.33 | 21739 | -56548 | 21315 | 4271* |
| TORONTO | AG* | 43.67 | 280.50 | 46.33 | 35.20 | 348.56 | 34.28 | 353.02 | 34.22 | 353.00 | -8.98 | 16964 | 55282 | 16756 | -2648* |
| TOULOUSE | TLS | 43.61 | 1.46 | 46.39 | 43.90 | 82.90 | 51.68 | 78.39 | 51.71 | 78.37 | -4.19 | 22974 | 39221 | 22913 | -1679* |
| TOUNGOO | TGO | 18.93 | 96.45 | 71.07 | 82.11 | 167.46 | 79.25 | 167.65 | | | -.69 | 40179 | 17195 | 40176 | -484* |
| TOYOHARA | TOH | 46.95 | 142.75 | 43.05 | 52.83 | 207.94 | 50.32 | 212.97 | 50.29 | 212.99 | -9.92 | 25041 | 44734 | 24667 | -4314* |
| TRELEW | TRW | -43.25 | 294.69 | 133.25 | 121.95 | 4.36 | 118.30 | 5.23 | 118.15 | 5.27 | 7.18 | 21048 | -18344 | 20883 | 2631* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRIVANDRUM | TRD | 8.48 | 76.95 | 81.52 | 91.08 | 147.75 | 90.25 | 148.37 | | | -2.77 | 39896 | -232 | 39849 | -1928 |
| TROMSO | TRO | 69.66 | 18.95 | 20.34 | 23.05 | 117.40 | 23.66 | 104.53 | 23.64 | 104.54 | .53 | 11373 | 51561 | 11373 | 106 |
| TSINGTAO | TSI | 36.07 | 120.32 | 53.93 | 65.08 | 189.55 | 60.64 | 191.71 | 60.64 | 191.71 | -5.73 | 31157 | 40720 | 31001 | -3111* |
| TSUMEB | TSU | -19.22 | 17.70 | 109.22 | 108.45 | 84.24 | 119.96 | 85.15 | | | -13.83 | 15873 | -27011 | 15413 | -3794 |
| TUCSON | TUC | 32.25 | 249.17 | 57.75 | 49.50 | 313.83 | 50.11 | 313.24 | 50.06 | 313.17 | 12.09 | 25618 | 42957 | 25049 | 5369 |
| TULSA | TUL | 35.91 | 264.21 | 54.09 | 44.05 | 330.04 | 43.47 | 330.39 | 43.42 | 330.25 | 6.70 | 22395 | 49618 | 22242 | 2613* |
| TUNTUNGAN | TUN | 3.51 | 98.56 | 86.49 | 97.60 | 168.89 | 96.20 | 169.46 | | | -.46 | 40345 | -9619 | 40344 | -324* |
| UCCLE | UCC | 50.80 | 4.36 | 39.20 | 37.60 | 88.99 | 42.95 | 82.86 | 43.01 | 82.79 | -3.90 | 19227 | 43683 | 19182 | -1308* |
| UGUT | UGT | 61.00 | 74.00 | 29.00 | 38.72 | 153.18 | 33.86 | 147.00 | 33.88 | 146.93 | 15.88 | 13288 | 56580 | 12781 | 3636* |
| UJJAIN | UJJ | 23.18 | 75.78 | 66.82 | 76.35 | 148.23 | 73.80 | 147.52 | 74.02 | 147.48 | -.51 | 37031 | 24388 | 37030 | -330* |
| UKHTA | UKH | 60.50 | 74.00 | 29.50 | 39.22 | 153.04 | 34.35 | 146.92 | 34.37 | 146.85 | 15.46 | 13580 | 56461 | 13089 | 3620* |
| ULAN BATOR | UBA | 47.85 | 107.05 | 42.15 | 53.39 | 177.90 | 46.22 | 177.38 | 47.88 | 178.65 | -3.57 | 22670 | 54115 | 22626 | -1412* |
| URUMQI | WMQ | 43.82 | 87.70 | 46.18 | 56.82 | 161.23 | 51.67 | 159.41 | 51.67 | 159.44 | 2.61 | 25389 | 50091 | 25362 | 1157 |
| UTRECHT | WI* | 52.08 | 5.12 | 37.92 | 36.52 | 90.40 | 41.52 | 83.91 | 41.55 | 83.85 | -3.74 | 18590 | 44349 | 18550 | -1213* |
| VAL JOYEUX | VLJ | 48.82 | 2.02 | 41.18 | 39.01 | 85.69 | 45.13 | 80.35 | 45.20 | 80.29 | -4.61 | 20230 | 42554 | 20165 | -1626* |
| VALENTIA | VAL | 51.93 | 349.75 | 38.07 | 33.68 | 74.70 | 39.94 | 71.77 | 39.91 | 71.74 | -10.84 | 18980 | 44450 | 18641 | -3570 |
| VASSOURAS | VSS | -22.40 | 316.35 | 112.40 | 102.21 | 25.20 | 104.81 | 22.79 | 104.75 | 22.72 | -19.23 | 21119 | -11172 | 19940 | -6956 |
| VICTORIA | VIC | 48.52 | 236.58 | 41.48 | 35.64 | 294.73 | 35.95 | 294.23 | 35.93 | 294.14 | 21.52 | 19016 | 52877 | 17690 | 6976 |
| VIEQUES | VQS | 18.15 | 294.55 | 71.85 | 60.59 | 5.41 | 60.24 | 9.13 | | | -10.37 | 27392 | 31021 | 26945 | -4931* |
| VLADIVOSTOK | VLA | 43.68 | 132.17 | 46.32 | 56.90 | 199.35 | 53.25 | 203.47 | 53.27 | 203.47 | -9.69 | 26961 | 44974 | 26576 | -4540 |
| VOSTOK | VOS | -78.45 | 106.87 | 168.45 | 179.41 | 111.68 | 173.22 | 52.90 | 173.33 | 53.65 | 118.73 | 13030 | -59361 | -6264 | -11424 |
| VYKHODNOY | VYK | 73.24 | 56.73 | 16.76 | 25.23 | 147.33 | 21.91 | 136.34 | 21.91 | 136.26 | 24.93 | 8449 | 55541 | 7662 | 3561* |
| WAKE ISLAND | WKE | 19.20 | 166.70 | 70.80 | 77.19 | 234.41 | 76.54 | 235.15 | | | 6.97 | 31011 | 14768 | 30782 | 3763* |
| WARSAW | SW* | 52.22 | 21.03 | 37.78 | 39.48 | 105.52 | 42.17 | 96.95 | 42.23 | 96.90 | 2.29 | 18497 | 45336 | 18482 | 739* |
| WASHINGTON 1 | CH* | 38.88 | 283.00 | 51.12 | 39.90 | 351.99 | 39.11 | 356.22 | 38.98 | 356.22 | -8.97 | 19755 | 51878 | 19513 | -3080* |
| WASHINGTON 2 | FR* | 38.90 | 282.95 | 51.10 | 39.88 | 351.93 | 39.08 | 356.15 | 38.96 | 356.15 | -8.93 | 19743 | 51900 | 19504 | -3065* |
| WASHINGTON CITY | FR* | 38.90 | 282.97 | 51.10 | 39.88 | 351.94 | 39.08 | 356.16 | 38.96 | 356.15 | -8.93 | 19743 | 51900 | 19504 | -3065* |
| WASHINGTON NEW | FR* | 38.92 | 282.95 | 51.08 | 39.87 | 351.93 | 39.07 | 356.15 | 38.96 | 356.15 | -8.93 | 19743 | 51900 | 19504 | -3065* |
| WATHEROO | WAT | -30.32 | 115.88 | 120.32 | 131.55 | 187.24 | 132.71 | 185.97 | 132.71 | 186.02 | -2.49 | 24207 | -52753 | 24184 | -1052* |
| WESTON | WES | 42.38 | 288.68 | 47.62 | 36.31 | 358.86 | 36.05 | 4.92 | 35.96 | 4.95 | -15.49 | 18240 | 53001 | 17577 | -4871* |
| WHITESHELL | WHS | 49.75 | 264.75 | 40.25 | 30.30 | 327.44 | 29.28 | 329.52 | 29.13 | 329.36 | 4.82 | 14089 | 58606 | 14039 | 1184* |
| WIEN-KOBENZL | WIK | 48.27 | 16.32 | 41.73 | 42.35 | 99.32 | 46.59 | 91.87 | 46.63 | 91.79 | .67 | 20808 | 42906 | 20807 | 246 |
| WILHELMSHAVEN | WLH | 53.53 | 8.15 | 36.47 | 35.74 | 94.13 | 40.08 | 86.86 | 40.11 | 86.79 | -2.60 | 17886 | 45128 | 17868 | -811* |
| WILKES | WIL | -66.25 | 110.58 | 156.25 | 167.56 | 181.85 | 170.77 | 154.72 | 170.84 | 155.07 | -95.76 | 9202 | -63259 | -924 | 9156* |
| WINGST | WNG | 53.74 | 9.07 | 36.26 | 35.73 | 95.14 | 39.92 | 87.67 | 39.92 | 87.61 | -1.98 | 18092 | 45209 | 18081 | -627 |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| WINNIPEG | WNP | 49.63 | 262.87 | 40.37 | 30.62 | 325.11 | 29.63 | 326.79 | 29.56 | 326.66 | 7.92 | 13864 | 58656 | 13732 | 1910* |
| WITTEVEEN | WIT | 52.81 | 6.67 | 37.19 | 36.13 | 92.30 | 40.79 | 85.42 | 40.81 | 85.35 | -3.05 | 18528 | 44662 | 18502 | -986 |
| WUHAN | WHN | 30.53 | 114.56 | 59.47 | 70.77 | 184.52 | 66.40 | 185.67 | 66.38 | 185.67 | -3.13 | 34738 | 34370 | 34686 | -1897* |
| WUSTROW | WUS | 54.35 | 12.40 | 35.65 | 35.80 | 98.65 | 39.43 | 90.60 | 39.45 | 90.51 | -.85 | 17481 | 45690 | 17479 | -259* |
| YAKUTSK | YAK | 62.02 | 129.72 | 27.98 | 38.80 | 194.93 | 34.29 | 199.83 | 34.33 | 199.88 | -19.32 | 15107 | 58127 | 14255 | -4999 |
| YANOV | YNV | 49.90 | 23.73 | 40.10 | 42.20 | 106.94 | 44.86 | 98.62 | 44.88 | 98.55 | 2.88 | 19662 | 44472 | 19637 | 988* |
| YAUCA | YAU | -15.53 | 285.33 | 105.53 | 94.24 | 355.88 | 92.06 | 356.33 | | | 3.27 | 26443 | -2149 | 26400 | 1508* |
| YELLOWKNIFE | YKC | 62.40 | 245.50 | 27.60 | 20.89 | 295.29 | 20.27 | 297.26 | 20.14 | 296.98 | 27.84 | 8721 | 60179 | 7711 | 4073 |
| YUZHNO SAKHALINS | YSS | 46.95 | 142.72 | 43.05 | 52.83 | 207.91 | 50.31 | 212.94 | 50.31 | 212.97 | -10.02 | 25255 | 44678 | 24870 | -4394 |
| ZARIA | ZAR | 11.15 | 07.65 | 78.85 | 76.74 | 80.47 | 92.15 | 79.50 | | | -4.03 | 33634 | 527 | 33551 | -2364* |
| ZIKAWEI | ZKW | 31.21 | 121.44 | 58.79 | 69.91 | 190.77 | 65.79 | 192.56 | 65.77 | 192.55 | -4.61 | 33745 | 34495 | 33636 | -2712* |
| ZINSEN | ZIN | 37.48 | 126.63 | 52.52 | 63.42 | 195.06 | 59.43 | 197.96 | 59.42 | 197.98 | -7.23 | 30179 | 40660 | 29939 | -3798* |

TABLE 4

## GEOMAGNETIC OBSERVATORY TABLE

FOR
1 9 8 0

(SEQUENCED BY DIPOLE CO-LAT)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| THULE | THL | 77.48 | 290.83 | 12.52 | 1.23 | 12.65 | 4.00 | 38.76 | 3.75 | 38.80 | -74.46 | 3921 | 56688 | 1050 | -3778 |
| THULE AFB | THU | 76.55 | 291.17 | 13.45 | 2.16 | 19.81 | 4.71 | 34.24 | 4.51 | 33.83 | -73.03 | 4165 | 56403 | 1216 | -3984* |
| ALERT | ALE | 82.50 | 297.50 | 7.50 | 4.03 | 165.16 | 3.30 | 115.03 | 3.21 | 117.77 | -76.93 | 3669 | 55887 | 829 | -3574 |
| RESOLUTE BAY | RES | 74.70 | 265.10 | 15.30 | 6.82 | 292.86 | 6.08 | 312.48 | 5.95 | 310.77 | -58.18 | 865 | 58556 | 456 | -735 |
| NORTH POLE 7 | NPG | 85.00 | 268.12 | 5.00 | 6.92 | 195.37 | 3.96 | 185.14 | 4.09 | 185.28 | 123.22 | 1928 | 56370 | -1056 | 1613* |
| NORD | NRD | 81.60 | 343.24 | 8.40 | 9.25 | 132.88 | 9.33 | 109.45 | 9.25 | 110.32 | -30.72 | 5978 | 54388 | 5139 | -3054* |
| GODHAVN | GDH | 69.25 | 306.47 | 20.75 | 10.43 | 34.62 | 13.37 | 41.91 | 13.25 | 41.84 | -48.14 | 8537 | 56362 | 5696 | -6358 |
| MOULD BAY | MBC | 76.20 | 240.60 | 13.80 | 10.60 | 258.34 | 9.25 | 267.03 | 9.19 | 266.53 | 60.57 | 2602 | 58258 | 1278 | 2266 |
| PELLY BAY | PEB | 68.53 | 270.48 | 21.47 | 11.37 | 322.55 | 10.82 | 333.76 | 10.79 | 333.38 | -31.72 | 2592 | 59389 | 2205 | -1363* |
| KINGUAFJORD | KJ* | 66.60 | 292.68 | 23.40 | 12.12 | 5.85 | 13.54 | 17.95 | 13.41 | 17.76 | -49.38 | 6775 | 57438 | 4411 | -5143* |
| GJOAHAVN | GJO | 68.63 | 264.08 | 21.37 | 12.13 | 311.67 | 11.39 | 320.90 | 11.29 | 320.36 | -3.34 | 2229 | 59636 | 2225 | -130* |
| HOLSTEINSBORG 1 | HS* | 66.87 | 306.73 | 23.13 | 12.75 | 31.67 | 15.61 | 39.48 | 15.47 | 39.42 | -45.50 | 8834 | 55273 | 6192 | -6301* |
| JOHNSON POINT | JOP | 72.47 | 241.70 | 17.53 | 12.93 | 272.78 | 11.97 | 279.07 | 11.90 | 278.72 | 50.86 | 3819 | 58635 | 2411 | 2962* |
| CAMBRIDGE BAY | CBB | 69.20 | 255.00 | 20.80 | 13.09 | 297.09 | 12.21 | 303.93 | 12.21 | 303.59 | 27.41 | 3095 | 60054 | 2747 | 1425 |
| ARCTIC ICE FLO | AIF | 83.53 | 193.05 | 6.47 | 13.65 | 208.33 | 10.61 | 212.50 | 10.64 | 212.40 | 42.89 | 2301 | 57134 | 1686 | 1566* |
| SUKKERTOPPEN | SKT | 65.42 | 307.10 | 24.58 | 14.18 | 30.73 | 17.01 | 38.60 | 16.92 | 38.61 | -43.32 | 9445 | 55146 | 6872 | -6480* |
| MURCHISON BAY | MUB | 80.50 | 18.25 | 9.50 | 14.57 | 138.99 | 13.38 | 121.50 | 13.37 | 122.08 | .89 | 6754 | 54234 | 6753 | 105* |
| SACHS HARBOUR | SAH | 72.00 | 235.00 | 18.00 | 14.61 | 267.47 | 13.75 | 272.94 | 13.67 | 272.53 | 47.73 | 5130 | 58397 | 3451 | 3796* |
| SCORESBYSUND | SCO | 70.48 | 338.03 | 19.52 | 14.61 | 82.62 | 18.02 | 75.39 | 17.25 | 71.96 | -30.95 | 9871 | 52336 | 8460 | -5070* |
| NEW AALESUND | NAL | 78.92 | 11.93 | 11.08 | 14.70 | 131.33 | 14.27 | 113.87 | 14.22 | 114.39 | -3.78 | 7458 | 53652 | 7442 | -492* |
| KAP TOBIN | KTG | 70.42 | 238.03 | 19.58 | 15.27 | 274.21 | 14.48 | 278.87 | 14.41 | 278.64 | 45.70 | 5370 | 58741 | 3750 | 3843* |
| SPITZBERGEN | SPB | 78.50 | 15.10 | 11.50 | 15.44 | 131.69 | 14.88 | 114.70 | 14.85 | 115.20 | -1.05 | 7622 | 53608 | 7621 | -140* |
| GODHAAB 1 | GH* | 64.18 | 308.28 | 25.82 | 15.50 | 31.48 | 18.41 | 39.16 | 18.36 | 39.27 | -41.18 | 10110 | 54845 | 7609 | -6657* |
| CAP THORDSEN | SL* | 78.47 | 15.70 | 11.53 | 15.56 | 131.88 | 14.96 | 114.97 | 14.93 | 115.46 | -.55 | 7631 | 53616 | 7631 | -73* |
| CAPE PARRY | CPY | 70.17 | 235.28 | 19.83 | 16.01 | 271.95 | 15.29 | 276.44 | 15.21 | 276.11 | 44.58 | 5978 | 58582 | 4258 | 4196* |
| TASUISAK | AJ* | 65.62 | 322.45 | 24.38 | 16.03 | 54.24 | 19.88 | 56.09 | 19.88 | 56.21 | -35.00 | 11044 | 52691 | 9047 | -6335* |
| BAKER LAKE | BLC | 64.33 | 263.97 | 25.67 | 16.18 | 317.71 | 15.36 | 323.91 | 15.21 | 323.69 | 2.48 | 4637 | 60650 | 4633 | 201 |
| CHESTERFIELD INL | CFI | 63.33 | 269.28 | 26.67 | 16.52 | 327.34 | 15.12 | 330.07 | 15.64 | 333.68 | -10.62 | 4659 | 60390 | 4579 | -859* |
| NORUSUND | NOR | 77.00 | 15.55 | 13.00 | 16.56 | 128.06 | 16.30 | 111.89 | 16.25 | 112.23 | -0.36 | 8233 | 53200 | 8233 | -52* |
| JAN MAYEN 1 | JM* | 71.00 | 351.53 | 19.00 | 16.83 | 97.02 | 19.50 | 86.20 | 19.52 | 86.20 | -17.52 | 10339 | 51399 | 9859 | -3112* |
| NORTH POLE 6 | NPF | 84.00 | 94.00 | 6.00 | 17.18 | 174.54 | 13.14 | 168.50 | 13.20 | 168.66 | 45.00 | 2718 | 57166 | 1922 | 1922* |
| RANKIN INLET | RIT | 62.80 | 267.67 | 27.20 | 17.19 | 324.72 | 16.34 | 331.11 | 16.26 | 331.00 | -5.35 | 4914 | 60526 | 4893 | -458* |
| NORTH POLE 12 | NPL | 79.00 | 187.00 | 11.00 | 17.38 | 218.57 | 14.92 | 225.01 | 14.93 | 224.86 | 19.90 | 5271 | 57118 | 4956 | 1794* |
| NORTH POLE 13 | NPM | 81.00 | 165.00 | 9.00 | 18.01 | 204.62 | 14.68 | 209.29 | 14.69 | 209.16 | 7.74 | 3936 | 57502 | 3900 | 530* |
| TIKHAYA BAY | TKH | 80.33 | 52.80 | 9.67 | 18.46 | 153.64 | 15.34 | 141.11 | 15.42 | 141.34 | 26.49 | 5866 | 55749 | 5250 | 2616* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEISS ISLAND | HIS | 80.62 | 58.05 | 9.38 | 18.66 | 156.45 | 15.31 | 144.79 | 15.32 | 145.06 | 29.68 | 5481 | 56068 | 4762 | 2714* |
| NORTH POLE 8 | NPH | 77.00 | 189.00 | 13.00 | 18.69 | 223.64 | 16.65 | 230.34 | 16.62 | 230.23 | 18.94 | 6593 | 56892 | 6236 | 2140* |
| IVIGTUT 1 | IV* | 61.20 | 311.73 | 28.80 | 18.77 | 34.36 | 21.94 | 41.33 | 21.84 | 41.44 | -36.25 | 11861 | 53772 | 9565 | -7014* |
| IVIGTUT | IVI | 61.20 | 311.85 | 28.80 | 18.78 | 34.53 | 21.97 | 41.46 | 21.97 | 41.58 | -36.20 | 11876 | 53747 | 9583 | -7014* |
| ESKIMO POINT | EKP | 61.10 | 265.93 | 28.90 | 19.04 | 323.51 | 18.11 | 328.75 | 18.02 | 328.62 | .74 | 5911 | 60722 | 5911 | 76* |
| BEAR ISLAND | BJN | 74.50 | 19.20 | 15.50 | 19.05 | 125.03 | 18.96 | 110.18 | 18.90 | 110.05 | 3.25 | 9280 | 52920 | 9265 | 526 |
| NARSSARSSUAQ | NAQ | 61.10 | 314.80 | 28.90 | 19.23 | 38.70 | 22.71 | 44.66 | 22.71 | 44.85 | -34.19 | 12078 | 53850 | 9991 | -6787* |
| INUVIK | INK | 68.25 | 226.70 | 21.75 | 19.29 | 267.09 | 18.87 | 270.56 | 18.86 | 270.36 | 38.75 | 8500 | 57837 | 6629 | 5320* |
| JULIANEHAAB | JUL | 60.72 | 313.97 | 29.28 | 19.50 | 37.21 | 22.91 | 43.49 | 22.90 | 43.70 | -34.81 | 12351 | 53218 | 10141 | -7051* |
| BARTER ISLAND | BTI | 70.13 | 216.02 | 19.87 | 19.78 | 254.50 | 19.24 | 259.00 | 19.21 | 259.15 | 34.92 | 8940 | 56963 | 7330 | 5118* |
| LEIRVOGUR | LRV | 64.18 | 338.30 | 25.82 | 20.11 | 72.19 | 24.39 | 69.10 | 24.37 | 69.10 | -20.98 | 12401 | 49993 | 11579 | -4440 |
| NANORTALIK 1 | NN* | 60.13 | 314.73 | 29.87 | 20.16 | 37.89 | 23.66 | 43.98 | 23.65 | 44.21 | -33.89 | 12712 | 52930 | 10552 | -7088* |
| NORMAN WELLS | NOW | 64.90 | 234.50 | 25.10 | 20.68 | 279.83 | 20.34 | 282.02 | 20.29 | 281.81 | 36.79 | 8998 | 58583 | 7206 | 5389* |
| FORT RAE | FRA | 62.80 | 243.90 | 27.20 | 20.81 | 292.95 | 20.23 | 294.90 | 20.18 | 294.64 | 32.54 | 8303 | 59633 | 7000 | 4466* |
| FORT RAE 1 | FE* | 62.65 | 244.27 | 27.35 | 20.88 | 293.54 | 20.29 | 295.48 | 20.24 | 295.21 | 32.18 | 8318 | 59667 | 7040 | 4430* |
| YELLOWKNIFE | YKC | 62.40 | 245.50 | 27.60 | 20.89 | 295.29 | 20.27 | 297.26 | 20.14 | 296.98 | 27.84 | 8721 | 60179 | 7711 | 4073 |
| BARROW | BRW | 71.32 | 203.38 | 18.68 | 21.09 | 242.66 | 20.33 | 248.14 | 20.39 | 248.06 | 25.88 | 9798 | 56409 | 8815 | 4277 |
| FORT CHURCHILL | FCC | 58.77 | 265.90 | 31.23 | 21.32 | 325.02 | 20.33 | 329.46 | 20.19 | 329.25 | 2.36 | 7555 | 60697 | 7549 | 312 |
| NORTH POLE 10 | NPJ | 77.00 | 166.38 | 13.00 | 21.38 | 211.09 | 18.49 | 217.32 | 18.49 | 217.44 | 1.28 | 6700 | 57272 | 6698 | 150* |
| ARCTIC VILLAGE | AVI | 68.13 | 214.43 | 21.87 | 21.77 | 256.17 | 21.49 | 260.13 | 21.51 | 259.96 | 32.14 | 10425 | 56431 | 8827 | 5546* |
| BACK | BKC | 57.68 | 265.77 | 32.32 | 22.39 | 325.46 | 21.38 | 329.56 | 21.28 | 329.34 | 2.92 | 8042 | 60702 | 8032 | 410* |
| BODO | BOD | 69.30 | 14.42 | 20.70 | 22.56 | 113.40 | 23.66 | 100.91 | 23.67 | 100.87 | -.46 | 11217 | 50930 | 11217 | -90* |
| FORT SIMPSON | FSP | 61.75 | 238.77 | 28.25 | 22.72 | 288.15 | 22.33 | 289.42 | 22.32 | 289.29 | 32.72 | 10012 | 58896 | 8423 | 5412* |
| CAPE ZHELANIA | CZA | 77.00 | 68.60 | 13.00 | 22.77 | 157.58 | 18.76 | 148.26 | 18.77 | 148.08 | 32.04 | 6113 | 56855 | 5182 | 3243* |
| TROMSO | TRO | 69.66 | 18.95 | 20.34 | 23.05 | 117.40 | 23.66 | 104.53 | 23.64 | 104.54 | .53 | 11373 | 51561 | 11373 | 106 |
| FORT YUKON | FYU | 66.57 | 214.73 | 23.43 | 23.08 | 258.48 | 23.00 | 261.89 | 22.99 | 261.73 | 31.20 | 11360 | 56106 | 9717 | 5885* |
| GILLAM | GIM | 56.85 | 265.58 | 33.15 | 23.22 | 325.64 | 22.21 | 329.45 | 22.10 | 329.25 | 3.54 | 8600 | 60631 | 8584 | 531* |
| BOSSEKOP | BOP | 69.97 | 23.25 | 20.03 | 23.52 | 121.05 | 23.63 | 108.01 | 23.63 | 108.00 | 5.33 | 10908 | 51579 | 10861 | 1013* |
| GREAT WHALE R. | GWC | 55.27 | 282.22 | 34.73 | 23.56 | 349.44 | 23.16 | 356.71 | 23.00 | 356.80 | -19.44 | 10665 | 59164 | 10057 | -3550 |
| CAPE CHELYUSKIN | CCS | 77.72 | 104.28 | 12.28 | 23.59 | 177.17 | 18.71 | 175.06 | 18.71 | 174.99 | 15.33 | 3460 | 59150 | 3337 | 915 |
| LYNN LAKE | LYN | 56.85 | 258.93 | 33.15 | 24.04 | 316.79 | 23.05 | 319.08 | 23.00 | 318.97 | 13.47 | 9336 | 60469 | 9079 | 2175* |
| ABISKO | ABK | 68.36 | 18.82 | 21.64 | 24.17 | 115.70 | 24.96 | 103.32 | 24.96 | 103.31 | 2.74 | 11798 | 51070 | 11784 | 566 |
| THOMPSON | TMP | 55.72 | 262.12 | 34.28 | 24.73 | 321.60 | 23.72 | 324.30 | 23.63 | 324.15 | 8.98 | 9694 | 60430 | 9575 | 1513* |
| KIRUNA | KIR | 67.83 | 20.42 | 22.17 | 24.91 | 116.37 | 25.60 | 104.08 | 25.59 | 104.10 | -5.69 | 11179 | 50928 | 11124 | -1108 |
| FORT SMITH | FSM | 58.00 | 246.00 | 32.00 | 24.93 | 299.87 | 24.39 | 300.80 | 24.35 | 300.57 | 26.02 | 10902 | 59365 | 9797 | 4783* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COLLEGE | CMO | 64.86 | 212.16 | 25.14 | 25.07 | 258.14 | 25.20 | 261.22 | 25.18 | 261.15 | 28.12 | 12997 | 55380 | 11462 | 6127 |
| EIELSON AFB | ENB | 64.67 | 212.92 | 25.33 | 25.10 | 259.02 | 25.23 | 262.02 | 25.23 | 261.92 | 28.99 | 12783 | 55300 | 11181 | 6195* |
| MATOCHKIN SHAR | MSR | 73.26 | 56.40 | 16.74 | 25.16 | 147.14 | 21.88 | 136.09 | 21.88 | 136.02 | 24.82 | 8461 | 55505 | 7679 | 3552* |
| PETSAMO | PTS | 69.53 | 31.25 | 20.47 | 25.21 | 126.47 | 24.53 | 113.71 | 24.53 | 113.66 | 10.14 | 10963 | 52070 | 10792 | 1930* |
| VYKHODNOY | VYK | 73.24 | 56.73 | 16.76 | 25.23 | 147.33 | 21.91 | 136.34 | 21.91 | 136.26 | 24.93 | 8449 | 55541 | 7662 | 3561* |
| IVALO | IVA | 68.60 | 27.48 | 21.40 | 25.43 | 122.68 | 25.25 | 110.12 | 25.25 | 110.06 | 7.71 | 11385 | 51503 | 11282 | 1527* |
| BIG DELTA | BDE | 64.00 | 214.27 | 26.00 | 25.45 | 260.95 | 25.62 | 263.72 | 25.62 | 263.57 | 29.28 | 13011 | 55291 | 11349 | 6363* |
| NORTHWAY | NRW | 63.02 | 218.20 | 26.98 | 25.56 | 265.62 | 25.77 | 267.80 | 25.84 | 267.59 | 30.36 | 13090 | 55601 | 11295 | 6616* |
| MALIYE KARMAKULY | MKL | 72.30 | 52.50 | 17.70 | 25.62 | 143.81 | 22.67 | 132.32 | 22.67 | 132.27 | 22.51 | 9090 | 54931 | 8397 | 3480* |
| MELVILLE AFB | MEV | 53.28 | 299.47 | 36.72 | 25.64 | 13.71 | 27.10 | 22.51 | 27.09 | 22.53 | -29.53 | 13928 | 54897 | 12119 | -6865* |
| KOTZEBUE | KOT | 66.88 | 197.37 | 23.12 | 26.00 | 243.51 | 25.78 | 248.31 | 25.79 | 248.31 | 20.08 | 13037 | 54268 | 12245 | 4476* |
| ISLAND LAKE | ISL | 53.88 | 265.32 | 36.12 | 26.17 | 326.66 | 25.14 | 329.66 | 25.02 | 329.50 | 4.70 | 10635 | 60138 | 10599 | 871* |
| HEALY | HEA | 63.86 | 211.03 | 26.14 | 26.19 | 258.16 | 26.44 | 261.08 | 26.42 | 261.01 | 27.49 | 13536 | 54714 | 12008 | 6248* |
| BELIY ISLAND | BEY | 73.30 | 70.00 | 16.70 | 26.40 | 155.67 | 22.13 | 147.04 | 22.15 | 146.94 | 28.57 | 7436 | 57107 | 6531 | 3556* |
| SODANKYLA | SOD | 67.37 | 26.63 | 22.63 | 26.40 | 120.76 | 26.44 | 108.54 | 26.44 | 108.50 | 6.56 | 11932 | 50683 | 11854 | 1365 |
| NORWAY HOUSE | NHO | 53.98 | 262.17 | 36.02 | 26.43 | 322.51 | 25.39 | 324.82 | 25.33 | 324.70 | 8.84 | 10895 | 60073 | 10766 | 1674* |
| MURMANSK | MMK | 68.25 | 33.08 | 21.75 | 26.65 | 126.54 | 25.88 | 114.21 | 25.88 | 114.13 | 12.28 | 11819 | 51547 | 11549 | 2514 |
| CAPE SCHMIDT | CPS | 68.92 | 180.52 | 21.08 | 26.90 | 228.72 | 25.78 | 235.01 | 25.82 | 235.06 | 8.00 | 12539 | 54528 | 12417 | 1745* |
| DIXON ISLAND | DIK | 73.54 | 80.56 | 16.46 | 26.91 | 162.31 | 22.13 | 155.83 | 22.11 | 155.74 | 27.27 | 6404 | 58315 | 5692 | 2934 |
| LOVOZERO | LOZ | 67.97 | 35.02 | 22.03 | 27.21 | 127.73 | 26.24 | 115.54 | 26.24 | 115.47 | 11.72 | 11506 | 52026 | 11266 | 2337* |
| KANDALAKSHA | KND | 67.13 | 32.43 | 22.87 | 27.57 | 125.02 | 26.97 | 112.93 | 26.96 | 112.88 | 10.07 | 11888 | 51543 | 11705 | 2079* |
| PITLEKAJ | PL* | 67.08 | 186.62 | 22.92 | 27.63 | 234.91 | 27.06 | 240.58 | 27.08 | 240.59 | 12.21 | 13578 | 53737 | 13271 | 2872* |
| SSAGASTYR | GY* | 73.38 | 126.60 | 16.62 | 27.64 | 190.39 | 22.96 | 193.56 | 22.96 | 193.60 | -13.65 | 6386 | 59377 | 6206 | -1507* |
| LERWICK | LER | 60.13 | 358.82 | 29.87 | 27.76 | 89.62 | 31.80 | 82.55 | 31.78 | 82.53 | -7.83 | 14952 | 47857 | 14812 | -2039 |
| TALKEETNA | TLK | 62.30 | 209.90 | 27.70 | 27.82 | 258.59 | 28.22 | 261.21 | 28.20 | 261.19 | 26.08 | 14619 | 53892 | 13131 | 6427* |
| CAPE WELLEN | CWE | 66.16 | 190.17 | 23.84 | 27.89 | 238.48 | 27.61 | 243.70 | 27.58 | 243.71 | 14.78 | 14195 | 53530 | 13725 | 3622 |
| DOMBAS | DOB | 62.07 | 9.12 | 27.93 | 27.99 | 101.04 | 30.74 | 91.55 | 30.72 | 91.56 | -3.35 | 14230 | 48348 | 14206 | -832 |
| MEANOOK | MEA | 54.62 | 246.67 | 35.38 | 28.05 | 302.95 | 27.61 | 303.33 | 27.54 | 303.16 | 22.14 | 13488 | 58501 | 12493 | 5084 |
| KHARASAVEY | KHS | 71.13 | 66.83 | 18.87 | 28.21 | 152.31 | 24.07 | 143.39 | 24.10 | 143.28 | 25.92 | 8627 | 56674 | 7759 | 3771* |
| TAMBEY | TMB | 71.50 | 71.80 | 18.50 | 28.28 | 155.76 | 23.82 | 147.73 | 23.84 | 147.63 | 26.71 | 8049 | 57340 | 7190 | 3618* |
| ANCHORAGE | AMU | 61.24 | 210.13 | 28.76 | 28.75 | 259.73 | 29.25 | 262.11 | 29.26 | 262.06 | 25.64 | 15248 | 53429 | 13747 | 6598* |
| AMDERMA | AMD | 69.47 | 61.42 | 20.53 | 29.27 | 147.68 | 25.54 | 138.05 | 25.55 | 137.94 | 23.34 | 9766 | 55773 | 8967 | 3869* |
| TIXIE BAY | TIK | 71.58 | 129.00 | 18.42 | 29.34 | 192.37 | 24.71 | 196.28 | 24.74 | 196.33 | -16.50 | 7896 | 59528 | 7570 | -2243 |
| SEYKHA | SEY | 70.10 | 72.50 | 19.90 | 29.70 | 155.51 | 25.16 | 147.81 | 25.15 | 147.71 | 25.14 | 8620 | 57419 | 7803 | 3662* |
| SITKA | SIT | 57.06 | 224.68 | 32.94 | 29.77 | 277.09 | 30.18 | 277.77 | 30.17 | 277.59 | 27.53 | 15877 | 54802 | 14078 | 7341 |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED D | H | IGRF Z | CALCULATED(*) X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OSLO | OSL | 59.91 | 10.72 | 30.09 | 30.28 | 100.74 | 33.15 | 91.62 | 33.17 | 91.63 | -2.01 | 14967 | 47794 | 14958 | -525* |
| WHITESHELL | WHS | 49.75 | 264.75 | 40.25 | 30.30 | 327.44 | 29.28 | 329.52 | 29.13 | 329.36 | 4.82 | 14089 | 58606 | 14039 | 1184* |
| WINNIPEG | WNP | 49.63 | 262.87 | 40.37 | 30.62 | 325.11 | 29.63 | 326.79 | 29.56 | 326.66 | 7.92 | 13864 | 58656 | 13732 | 1910* |
| GLENLEA | GLL | 49.60 | 262.90 | 40.40 | 30.64 | 325.16 | 29.66 | 326.84 | 29.55 | 326.70 | 7.89 | 13860 | 58658 | 13729 | 1903* |
| ARKHANGELSK | ARK | 64.60 | 40.50 | 25.40 | 31.17 | 129.25 | 29.82 | 118.02 | 29.79 | 118.02 | 12.85 | 12777 | 51774 | 12457 | 2842* |
| CAPE KAMENNIY | CKA | 68.50 | 73.60 | 21.50 | 31.34 | 155.53 | 26.67 | 148.28 | 26.67 | 148.16 | 23.28 | 9285 | 57525 | 8529 | 3670* |
| NORILSK | NOK | 69.40 | 88.10 | 20.60 | 31.40 | 165.67 | 26.05 | 161.43 | 26.06 | 161.34 | 18.80 | 7619 | 59374 | 7213 | 2455* |
| MAKERSTOUN | MQ* | 55.58 | 357.48 | 34.42 | 31.72 | 84.90 | 36.66 | 79.26 | 36.72 | 79.24 | -8.11 | 16885 | 45923 | 16716 | -2382* |
| ENKOPING | ENK | 59.60 | 17.02 | 30.40 | 31.77 | 106.21 | 33.92 | 96.47 | 33.95 | 96.45 | 1.11 | 15090 | 47988 | 15087 | 292* |
| LORING AFB | LOB | 46.92 | 291.88 | 43.08 | 31.78 | 2.97 | 32.05 | 10.27 | 31.96 | 10.34 | -20.79 | 16154 | 54580 | 15102 | -5734* |
| ST JOHNS | STJ | 47.60 | 307.32 | 42.40 | 31.78 | 22.94 | 34.52 | 30.86 | 34.50 | 31.07 | -24.90 | 18375 | 50133 | 16666 | -7738 |
| ESKDALEMUIR | ESK | 55.32 | 356.80 | 34.68 | 31.85 | 84.04 | 36.88 | 78.62 | 36.93 | 78.60 | -8.35 | 17294 | 45788 | 17110 | -2513 |
| LOVO | LOV | 59.35 | 17.83 | 30.65 | 32.16 | 106.75 | 34.25 | 97.00 | 34.26 | 96.98 | 1.51 | 15499 | 48027 | 15494 | 410 |
| NURMIJARVI | NUR | 60.51 | 24.66 | 29.49 | 32.34 | 113.51 | 33.38 | 103.05 | 33.37 | 103.04 | 4.21 | 15202 | 49039 | 15161 | 1116 |
| DUBLIN | DL* | 53.35 | 353.73 | 36.65 | 33.10 | 79.67 | 38.77 | 75.44 | 38.82 | 75.39 | -9.43 | 17916 | 44989 | 17674 | -2935* |
| NYDA | NDA | 66.60 | 73.00 | 23.40 | 33.15 | 154.34 | 28.46 | 147.22 | 28.46 | 147.11 | 21.33 | 10284 | 57300 | 9580 | 3741* |
| OTTAWA | OTT | 45.40 | 284.45 | 44.60 | 33.34 | 353.42 | 32.80 | 359.08 | 32.68 | 359.10 | -14.03 | 16658 | 55605 | 16161 | -4040 |
| STONYHURST | STO | 53.85 | 357.53 | 36.15 | 33.37 | 83.86 | 38.68 | 78.60 | 38.72 | 78.56 | -7.64 | 17705 | 45140 | 17548 | -2354* |
| VALENTIA | VAL | 51.93 | 349.75 | 38.07 | 33.68 | 74.70 | 39.94 | 71.77 | 39.91 | 71.74 | -10.84 | 18980 | 44450 | 18641 | -3570 |
| EAST PORT | EP* | 44.90 | 293.02 | 45.10 | 33.81 | 4.35 | 34.18 | 11.47 | 34.09 | 11.62 | -20.01 | 17400 | 53271 | 16350 | -5954* |
| ST PETERSBURG | LN* | 59.93 | 30.33 | 30.07 | 33.88 | 117.97 | 34.19 | 107.45 | 34.21 | 107.47 | 6.94 | 14886 | 49191 | 14777 | 1799* |
| LENINGRAD | LNN | 59.95 | 30.71 | 30.05 | 33.93 | 118.29 | 34.18 | 107.77 | 34.21 | 107.78 | 7.12 | 15216 | 49053 | 15098 | 1888 |
| SLUTZK | SLU | 59.69 | 30.49 | 30.31 | 34.14 | 117.94 | 34.46 | 107.48 | 34.49 | 107.49 | 6.92 | 14999 | 49120 | 14890 | 1807* |
| RUDE SKOV | RSV | 55.84 | 12.46 | 34.16 | 34.41 | 99.57 | 37.73 | 91.22 | 37.77 | 91.14 | -.07 | 17069 | 46304 | 17067 | -252 |
| BRORFELDE | BFE | 55.63 | 11.67 | 34.37 | 34.46 | 98.71 | 37.94 | 90.50 | 37.97 | 90.42 | -1.48 | 17204 | 46040 | 17198 | -445 |
| COPENHAGEN | COP | 55.68 | 12.58 | 34.32 | 34.58 | 99.59 | 37.92 | 91.26 | 37.97 | 91.18 | -.84 | 16856 | 46259 | 16854 | -247* |
| NEWPORT | NEW | 48.26 | 242.88 | 41.74 | 34.79 | 301.85 | 34.81 | 301.39 | 34.76 | 301.28 | 20.22 | 18196 | 54513 | 17074 | 6290 |
| FLENSBURG | FLE | 54.78 | 9.43 | 35.22 | 34.82 | 96.09 | 38.76 | 88.36 | 38.77 | 88.29 | -2.16 | 17283 | 45736 | 17271 | -651* |
| AGINCOURT | AGN | 43.78 | 280.73 | 46.22 | 35.07 | 348.84 | 34.17 | 353.36 | 34.12 | 353.35 | -9.27 | 16906 | 55313 | 16685 | -2723* |
| TORONTO | AG* | 43.67 | 280.50 | 46.33 | 35.20 | 348.56 | 34.28 | 353.02 | 34.22 | 353.00 | -8.98 | 16964 | 55282 | 16756 | -2648* |
| KIEL | KE* | 54.33 | 10.15 | 35.67 | 35.38 | 96.51 | 39.33 | 88.75 | 39.33 | 88.69 | -1.81 | 17495 | 45572 | 17486 | -553* |
| VICTORIA | VIC | 48.52 | 236.58 | 41.48 | 35.64 | 294.73 | 35.95 | 294.23 | 35.93 | 294.14 | 21.52 | 19016 | 52877 | 17690 | 6976 |
| HARTLAND | HAD | 51.00 | 355.52 | 39.00 | 35.68 | 80.19 | 41.81 | 75.94 | 41.87 | 75.90 | -7.73 | 19331 | 43769 | 19155 | -2600 |
| WINGST | WNG | 53.74 | 9.07 | 36.26 | 35.73 | 95.14 | 39.92 | 87.67 | 39.92 | 87.61 | -1.98 | 18092 | 45209 | 18081 | -627 |
| WILHELMSHAVEN | WLH | 53.53 | 8.15 | 36.47 | 35.74 | 94.13 | 40.08 | 86.86 | 40.11 | 86.79 | -2.60 | 17886 | 45128 | 17868 | -811* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WUSTROW | WUS | 54.35 | 12.40 | 35.65 | 35.80 | 98.65 | 39.43 | 90.60 | 39.45 | 90.51 | -.85 | 17481 | 45690 | 17479 | -259* |
| BARTH | BAH | 54.37 | 12.75 | 35.63 | 35.86 | 98.98 | 39.43 | 90.89 | 39.45 | 90.80 | -.71 | 17471 | 45717 | 17470 | -216* |
| HACKNEY WICK 2 | HW* | 51.63 | 359.67 | 38.37 | 35.88 | 84.75 | 41.59 | 79.40 | 41.58 | 79.38 | -6.12 | 18800 | 44042 | 18693 | -2004* |
| LUBECK | LB* | 53.87 | 10.70 | 36.13 | 35.93 | 96.76 | 39.90 | 89.02 | 39.89 | 88.96 | -1.54 | 17714 | 45394 | 17708 | -476* |
| ROSTOCK | RO* | 54.10 | 12.15 | 35.90 | 35.99 | 98.27 | 39.70 | 90.30 | 39.72 | 90.22 | -.95 | 17601 | 45568 | 17599 | -292* |
| HACKNEY WICK | HW* | 51.55 | 359.97 | 38.45 | 36.01 | 85.01 | 41.72 | 79.61 | 41.58 | 79.38 | -6.12 | 18800 | 44043 | 18693 | -2004* |
| NUMTO | NMT | 63.50 | 71.40 | 26.50 | 36.04 | 152.03 | 31.40 | 145.00 | 31.41 | 144.92 | 18.47 | 12035 | 56605 | 11415 | 3813* |
| KEW | KEW | 51.47 | 359.69 | 38.53 | 36.05 | 84.68 | 41.79 | 79.36 | 41.77 | 79.34 | -6.08 | 18880 | 43961 | 18774 | -2000* |
| HAMBURG | HM* | 53.55 | 9.98 | 36.45 | 36.08 | 95.90 | 40.22 | 88.32 | 40.21 | 88.26 | -1.82 | 17869 | 45218 | 17860 | -568* |
| GREENWICH | GRW | 51.48 | .00 | 38.52 | 36.10 | 85.00 | 41.81 | 79.61 | 41.79 | 79.59 | -5.94 | 18876 | 43967 | 18775 | -1953* |
| WITTEVEEN | WIT | 52.81 | 6.67 | 37.19 | 36.13 | 92.30 | 40.79 | 85.42 | 40.81 | 85.35 | -3.05 | 18528 | 44662 | 18502 | -986 |
| ABINGER | ABN | 51.19 | 359.61 | 38.81 | 36.30 | 84.46 | 42.10 | 79.20 | 42.11 | 79.18 | -6.05 | 19024 | 43811 | 18918 | -2005* |
| WESTON | WES | 42.38 | 288.68 | 47.62 | 36.31 | 358.86 | 36.05 | 4.92 | 35.96 | 4.95 | -15.49 | 18240 | 53001 | 17577 | -4871* |
| FALMOUTH | FAL | 50.15 | 354.92 | 39.85 | 36.37 | 79.15 | 42.72 | 75.19 | 42.80 | 75.15 | -8.02 | 19509 | 43305 | 19318 | -2722* |
| DE BILT | DBN | 52.10 | 5.18 | 37.90 | 36.51 | 90.47 | 41.50 | 83.97 | 41.54 | 83.90 | -3.72 | 18580 | 44360 | 18541 | -1205* |
| UTRECHT | WI* | 52.08 | 5.12 | 37.92 | 36.52 | 90.40 | 41.52 | 83.91 | 41.55 | 83.85 | -3.74 | 18590 | 44349 | 18550 | -1213* |
| SREDNIKAN | SRE | 62.44 | 152.31 | 27.56 | 36.63 | 211.74 | 34.20 | 218.30 | 34.26 | 218.36 | -10.43 | 16423 | 53575 | 16152 | -2973* |
| HEL | HLP | 54.61 | 18.82 | 35.39 | 36.80 | 104.72 | 39.48 | 95.93 | 39.49 | 95.85 | 1.19 | 17653 | 46127 | 17649 | 367 |
| NEUFAHRWASSER | NF* | 54.42 | 18.65 | 35.58 | 36.95 | 104.47 | 39.68 | 95.73 | 39.69 | 95.64 | 1.61 | 17431 | 46116 | 17424 | 490* |
| KALININGRAD | KNG | 54.70 | 20.62 | 35.30 | 37.04 | 106.43 | 39.46 | 97.46 | 39.46 | 97.38 | 2.35 | 17292 | 46383 | 17277 | 709* |
| STETTIN-ZABELSDO | SZA | 53.45 | 14.57 | 36.55 | 37.07 | 100.17 | 40.55 | 92.04 | 40.59 | 91.94 | .04 | 17907 | 45420 | 17907 | 13* |
| BOROK | BOX | 58.03 | 38.97 | 31.97 | 37.13 | 124.14 | 36.44 | 114.21 | 36.40 | 114.17 | 9.33 | 15688 | 49557 | 15480 | 2543* |
| BOCHUM | BOC | 51.49 | 7.23 | 38.51 | 37.50 | 92.15 | 42.37 | 85.40 | 42.42 | 85.32 | -2.77 | 18887 | 44122 | 18865 | -913* |
| UCCLE | UCC | 50.80 | 4.36 | 39.20 | 37.60 | 88.99 | 42.95 | 82.86 | 43.01 | 82.79 | -3.90 | 19227 | 43683 | 19182 | -1308* |
| POTSDAM | POT | 52.38 | 13.06 | 37.62 | 37.79 | 98.20 | 41.70 | 90.44 | 41.73 | 90.35 | -.51 | 18432 | 44842 | 18431 | -164* |
| CLAUSTHAL | CLZ | 51.81 | 10.34 | 38.19 | 37.81 | 95.30 | 42.25 | 88.00 | 42.25 | 87.93 | -1.54 | 18725 | 44417 | 18718 | -503* |
| ST HELIER | STH | 49.19 | 357.91 | 40.81 | 37.86 | 81.72 | 44.26 | 77.21 | 44.33 | 77.17 | -6.45 | 20020 | 42730 | 19893 | -2249* |
| SEDDIN | SED | 52.28 | 13.01 | 37.72 | 37.89 | 98.09 | 41.82 | 90.36 | 41.84 | 90.27 | -.53 | 18482 | 44792 | 18481 | -171* |
| GOTTINGEN | GT* | 51.53 | 9.95 | 38.47 | 37.99 | 94.80 | 42.54 | 87.59 | 42.54 | 87.54 | -1.67 | 18859 | 44267 | 18851 | -550* |
| NIEMEGK | NGK | 52.07 | 12.68 | 37.93 | 38.01 | 97.67 | 42.03 | 90.01 | 42.07 | 89.92 | -.58 | 18825 | 44570 | 18824 | -192 |
| DOURBES | DOU | 50.10 | 4.60 | 39.90 | 38.31 | 88.86 | 43.77 | 82.80 | 43.86 | 82.75 | -3.64 | 19863 | 43346 | 19823 | -1263 |
| MANHAY | MAB | 50.30 | 5.68 | 39.70 | 38.33 | 90.03 | 43.63 | 83.74 | 43.71 | 83.68 | -3.28 | 19480 | 43462 | 19448 | -1115* |
| CASPER | CSR | 42.83 | 253.63 | 47.17 | 38.46 | 316.17 | 38.14 | 315.98 | 38.06 | 315.91 | 13.46 | 19625 | 53433 | 19086 | 4568* |
| MINSK | MNK | 54.50 | 27.88 | 35.50 | 38.58 | 112.82 | 39.91 | 103.49 | 40.29 | 102.15 | 5.29 | 17931 | 46832 | 17854 | 1655 |
| UGUT | UGT | 61.00 | 74.00 | 29.00 | 38.72 | 153.18 | 33.86 | 147.00 | 33.88 | 146.93 | 15.88 | 13288 | 56580 | 12781 | 3636* |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | COORDINATES | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| PHILADELPHIA | PH* | 39.97 | 284.82 | 50.03 | 38.77 | 354.14 | 38.13 | 358.96 | 37.99 | 358.99 | -11.04 | 19244 | 52312 | 18888 | -3685* |
| COLLMBERG | CLL | 51.32 | 13.00 | 38.68 | 38.79 | 97.60 | 42.91 | 90.03 | 42.95 | 89.94 | -.50 | 18959 | 44331 | 18958 | -165* |
| YAKUTSK | YAK | 62.02 | 129.72 | 27.98 | 38.80 | 194.93 | 34.29 | 199.83 | 34.33 | 199.88 | -19.32 | 15107 | 58127 | 14255 | -4999 |
| VAL JOYEUX | VLJ | 48.82 | 2.02 | 41.18 | 39.01 | 85.69 | 45.13 | 80.35 | 45.20 | 80.29 | -4.61 | 20230 | 42554 | 20165 | -1626* |
| MAGADAN | MGD | 60.12 | 151.02 | 29.88 | 39.04 | 211.56 | 36.68 | 218.04 | 36.70 | 218.04 | -13.18 | 18047 | 52589 | 17571 | -4117 |
| PARC ST. MAUR | PSM | 48.82 | 2.48 | 41.18 | 39.12 | 86.15 | 45.18 | 80.72 | 45.24 | 80.65 | -4.41 | 20231 | 42563 | 20171 | -1556* |
| KUTCHINO | KTC | 55.76 | 37.97 | 34.24 | 39.13 | 122.19 | 38.74 | 112.66 | 38.73 | 112.61 | 8.15 | 16756 | 48598 | 16587 | 2375* |
| UKHTA | UKH | 60.50 | 74.00 | 29.50 | 39.22 | 153.04 | 34.35 | 146.92 | 34.37 | 146.85 | 15.46 | 13580 | 56461 | 13089 | 3620* |
| FREIBERG | FB* | 50.92 | 13.35 | 39.08 | 39.24 | 97.73 | 43.39 | 90.18 | 43.43 | 90.09 | -.37 | 19159 | 44156 | 19159 | -124* |
| P. TUNGUSKA | POD | 61.60 | 90.00 | 28.40 | 39.24 | 165.39 | 33.50 | 162.46 | 33.53 | 162.39 | 9.65 | 12418 | 59223 | 12242 | 2083 |
| MOSCOW | MOS | 55.48 | 37.31 | 34.52 | 39.30 | 121.49 | 39.03 | 112.01 | 39.01 | 111.97 | 7.73 | 17294 | 48636 | 17137 | 2327 |
| WARSAW | SW* | 52.22 | 21.03 | 37.78 | 39.48 | 105.52 | 42.17 | 96.95 | 42.23 | 96.90 | 2.29 | 18497 | 45336 | 18482 | 739* |
| SWIDER | SWI | 52.12 | 21.25 | 37.88 | 39.62 | 105.68 | 42.27 | 97.11 | 42.34 | 97.06 | 2.36 | 18542 | 45314 | 18526 | 764* |
| BRESLAU | BS* | 51.12 | 17.03 | 38.88 | 39.77 | 101.29 | 43.31 | 93.28 | 43.34 | 93.20 | .91 | 19050 | 44506 | 19048 | 303* |
| BELSK | BEL | 51.84 | 20.79 | 38.16 | 39.80 | 105.12 | 42.59 | 96.62 | 42.65 | 96.59 | 2.62 | 19063 | 45418 | 19043 | 871 |
| CHAMBON-LA-FORET | CLF | 48.02 | 2.26 | 41.98 | 39.83 | 85.57 | 46.14 | 80.31 | 46.20 | 80.24 | -4.34 | 20844 | 42116 | 20784 | -1579 |
| NANTES | NTS | 47.25 | 358.44 | 42.75 | 39.83 | 81.37 | 46.75 | 77.03 | 46.79 | 76.98 | -5.87 | 21024 | 41583 | 20914 | -2150* |
| WASHINGTON NEW | FR* | 38.92 | 282.95 | 51.08 | 39.87 | 351.93 | 39.07 | 356.15 | 38.96 | 356.15 | -8.93 | 19743 | 51900 | 19504 | -3065* |
| WASHINGTON 2 | FR* | 38.90 | 282.95 | 51.10 | 39.88 | 351.93 | 39.08 | 356.15 | 38.96 | 356.15 | -8.93 | 19743 | 51900 | 19504 | -3065* |
| WASHINGTON CITY | FR* | 38.90 | 282.97 | 51.10 | 39.88 | 351.94 | 39.08 | 356.16 | 38.96 | 356.15 | -8.93 | 19743 | 51900 | 19504 | -3065* |
| WASHINGTON 1 | CH* | 38.88 | 283.00 | 51.12 | 39.90 | 351.99 | 39.11 | 356.22 | 38.98 | 356.22 | -8.97 | 19755 | 51878 | 19513 | -3080* |
| ANDREWS AFB | AWS | 38.82 | 283.13 | 51.18 | 39.95 | 352.15 | 39.17 | 356.40 | 39.05 | 356.40 | -9.05 | 19791 | 51815 | 19545 | -3113* |
| HERMSDORF | HDF | 50.76 | 16.24 | 39.24 | 39.95 | 100.38 | 43.68 | 92.51 | 43.73 | 92.44 | .64 | 19234 | 44272 | 19233 | 215* |
| CHELTENHAM | CLM | 38.73 | 283.16 | 51.27 | 40.04 | 352.18 | 39.26 | 356.42 | 39.17 | 356.49 | -9.06 | 19857 | 51719 | 19609 | -3127* |
| PRUHONICE | PRU | 49.99 | 14.55 | 40.01 | 40.35 | 98.42 | 44.50 | 90.86 | 44.56 | 90.80 | .06 | 19629 | 43764 | 19629 | 21* |
| CARROLLTON | CAX | 39.37 | 266.47 | 50.63 | 40.42 | 332.06 | 39.57 | 333.04 | 39.49 | 332.98 | 5.07 | 20178 | 52728 | 20099 | 1783* |
| FREDERICKSBURG | FRD | 38.21 | 282.63 | 51.79 | 40.59 | 351.57 | 39.76 | 355.59 | 39.64 | 355.61 | -8.43 | 20449 | 51352 | 20228 | -2998 |
| BELOIT | BLT | 39.48 | 261.87 | 50.52 | 40.77 | 326.62 | 40.10 | 326.94 | 40.07 | 326.83 | 8.28 | 20620 | 52271 | 20405 | 2970* |
| KAZAN | KZN | 55.83 | 48.85 | 34.17 | 40.77 | 131.37 | 38.77 | 122.43 | 38.77 | 122.45 | 10.46 | 16830 | 50407 | 16550 | 3058 |
| BEUTHEN | BEU | 50.35 | 18.92 | 39.65 | 40.85 | 102.70 | 44.26 | 94.61 | 44.28 | 94.56 | 1.50 | 19437 | 44275 | 19430 | 509* |
| BOULDER | BOU | 40.14 | 254.76 | 49.86 | 40.96 | 318.22 | 40.72 | 317.98 | 40.67 | 317.83 | 12.23 | 21349 | 51156 | 20864 | 4525 |
| BEUTHEN MIKILOW | BMK | 50.15 | 18.90 | 39.85 | 41.04 | 102.59 | 44.49 | 94.53 | 44.51 | 94.49 | 1.48 | 19539 | 44173 | 19532 | 505* |
| BUDKOV | BDV | 49.08 | 14.02 | 40.92 | 41.12 | 97.50 | 45.55 | 90.17 | 45.62 | 90.09 | -.08 | 20323 | 43140 | 20323 | -29 |
| BALDWIN | BAL | 38.78 | 264.83 | 51.22 | 41.15 | 330.24 | 40.41 | 330.94 | 40.34 | 330.77 | 6.31 | 20703 | 52096 | 20578 | 2275* |
| BURLINGTON | BRT | 39.38 | 257.73 | 50.62 | 41.33 | 321.83 | 40.91 | 321.73 | 40.99 | 321.74 | 10.60 | 21213 | 51449 | 20851 | 3902* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CRACOW | CRA | 50.05 | 19.95 | 39.95 | 41.34 | 103.52 | 44.65 | 95.37 | 44.65 | 95.35 | 1.80 | 19589 | 44210 | 19579 | 615* |
| KRAKAU (CRAKAU) | KX* | 50.05 | 19.95 | 39.95 | 41.34 | 103.52 | 44.65 | 95.37 | 44.65 | 95.35 | 1.80 | 19589 | 44210 | 19579 | 615* |
| MAISACH | MAS | 48.20 | 11.26 | 41.80 | 41.42 | 94.47 | 46.50 | 87.61 | 46.54 | 87.56 | -1.01 | 20560 | 42587 | 20557 | -362* |
| FURSTENFELDBRUCK | FUR | 48.17 | 11.28 | 41.83 | 41.46 | 94.46 | 46.55 | 87.61 | 46.58 | 87.56 | -.95 | 20820 | 42489 | 20817 | -348 |
| ARTI | ARS | 56.43 | 58.57 | 33.57 | 41.52 | 139.56 | 38.26 | 131.61 | 38.25 | 131.60 | 11.61 | 16653 | 52700 | 16312 | 3353 |
| MUNICH | MNH | 48.15 | 11.61 | 41.85 | 41.54 | 94.77 | 46.59 | 87.88 | 46.62 | 87.84 | -.89 | 20586 | 42581 | 20584 | -320* |
| SVERDLOVSK | SVD | 56.73 | 61.07 | 33.27 | 41.54 | 141.69 | 37.99 | 134.02 | 37.97 | 134.01 | 13.10 | 16136 | 52743 | 15716 | 3657* |
| REGENSBERG | REG | 47.48 | 8.44 | 42.52 | 41.56 | 91.42 | 47.22 | 85.11 | 47.28 | 85.04 | -1.97 | 20938 | 42012 | 20926 | -720* |
| CLIMAX | CLI | 39.37 | 253.82 | 50.63 | 41.84 | 317.34 | 41.70 | 316.99 | 41.65 | 316.85 | 12.53 | 21635 | 50726 | 21120 | 4694* |
| LEADVILLE | LDV | 39.28 | 253.72 | 50.72 | 41.94 | 317.24 | 41.82 | 316.87 | 41.77 | 316.75 | 12.55 | 21697 | 50630 | 21179 | 4715* |
| CHATONNAYE | CTE | 46.67 | 06.83 | 43.33 | 42.02 | 89.50 | 48.10 | 83.61 | 48.19 | 83.50 | -2.49 | 21364 | 41446 | 21344 | -928* |
| TEVRIZ | TEV | 57.50 | 72.40 | 32.50 | 42.02 | 150.97 | 37.33 | 144.97 | 37.31 | 144.93 | 13.33 | 15432 | 55284 | 15016 | 3558* |
| KREMSMUNSTER | KRE | 48.06 | 14.13 | 41.94 | 42.12 | 97.16 | 46.77 | 89.98 | 46.81 | 89.89 | -.06 | 20631 | 42699 | 20631 | -22* |
| LVOV | LVV | 49.90 | 23.75 | 40.10 | 42.20 | 106.96 | 44.86 | 98.63 | 44.88 | 98.57 | 3.24 | 20077 | 44565 | 20045 | 1138 |
| YANOV | YNV | 49.90 | 23.73 | 40.10 | 42.20 | 106.94 | 44.86 | 98.62 | 44.88 | 98.55 | 2.88 | 19662 | 44472 | 19637 | 988* |
| PRICE | PCU | 39.60 | 249.17 | 50.40 | 42.26 | 312.00 | 42.39 | 311.36 | 42.31 | 311.39 | 14.38 | 22021 | 49882 | 21331 | 5469* |
| WIEN-KOBENZL | WIK | 48.27 | 16.32 | 41.73 | 42.35 | 99.32 | 46.59 | 91.87 | 46.63 | 91.79 | .67 | 20808 | 42906 | 20807 | 246 |
| ADAK | ADA | 51.87 | 183.36 | 38.13 | 42.50 | 241.36 | 43.17 | 244.88 | 43.74 | 245.00 | 8.77 | 21897 | 42676 | 21641 | 3339* |
| KIEV | KIV | 50.72 | 30.30 | 39.28 | 42.63 | 113.24 | 43.92 | 104.54 | 44.02 | 104.51 | 4.99 | 19498 | 45618 | 19424 | 1696 |
| NAGYCENK | NCK | 47.63 | 16.72 | 42.37 | 43.03 | 99.43 | 47.34 | 92.04 | 47.39 | 91.95 | .77 | 21126 | 42492 | 21124 | 285 |
| HURBANOVO | HRB | 47.87 | 18.19 | 42.13 | 43.08 | 100.92 | 47.10 | 93.34 | 47.13 | 93.25 | 1.15 | 20996 | 42772 | 20992 | 425 |
| O GYALLA | OGY | 47.88 | 18.19 | 42.12 | 43.08 | 100.92 | 47.10 | 93.34 | 47.13 | 93.25 | 1.16 | 20727 | 42907 | 20723 | 420* |
| STARA DALA | STA | 47.88 | 18.19 | 42.12 | 43.08 | 100.92 | 47.10 | 93.34 | 47.12 | 93.27 | 1.17 | 20722 | 42913 | 20718 | 423* |
| NIZHNEDEVITSK | NNV | 51.52 | 38.37 | 38.48 | 43.27 | 120.70 | 43.17 | 111.95 | 43.18 | 111.95 | 6.81 | 18855 | 46874 | 18722 | 2236* |
| KLAGENFURT | KF* | 46.62 | 14.30 | 43.38 | 43.54 | 96.71 | 48.47 | 89.76 | 48.54 | 89.65 | -.00 | 21395 | 41879 | 21395 | 0* |
| BUDAKESZI | BUZ | 47.52 | 18.90 | 42.48 | 43.55 | 101.44 | 47.53 | 93.84 | 47.55 | 93.78 | 1.35 | 20912 | 42771 | 20906 | 493* |
| BUDAPEST | HB* | 47.50 | 19.03 | 42.50 | 43.60 | 101.56 | 47.55 | 93.96 | 47.58 | 93.89 | 1.39 | 20923 | 42771 | 20917 | 508* |
| TOULOUSE | TLS | 43.61 | 1.46 | 46.39 | 43.90 | 82.90 | 51.68 | 78.39 | 51.71 | 78.37 | -4.19 | 22974 | 39221 | 22913 | -1679* |
| ANGRA HEROISMO | ANH | 38.32 | 332.78 | 51.68 | 43.93 | 50.70 | 52.98 | 54.33 | 53.01 | 54.39 | -15.09 | 24661 | 37003 | 23811 | -6420* |
| TIHANY | THY | 46.90 | 17.89 | 43.10 | 43.96 | 100.24 | 48.22 | 92.85 | 48.27 | 92.77 | 1.12 | 21482 | 42183 | 21478 | 423 |
| TULSA | TUL | 35.91 | 264.21 | 54.09 | 44.05 | 330.04 | 43.47 | 330.39 | 43.42 | 330.25 | 6.70 | 22395 | 49618 | 22242 | 2613* |
| TOMSK | TMK | 56.47 | 84.93 | 33.53 | 44.06 | 160.63 | 38.54 | 157.11 | 38.52 | 157.09 | 9.10 | 15737 | 57253 | 15539 | 2489* |
| LOGRONO | LGR | 42.46 | 357.50 | 47.54 | 44.25 | 78.44 | 52.81 | 74.95 | 52.88 | 74.93 | -5.58 | 23551 | 38305 | 23439 | -2290* |
| GENOVA | GEN | 44.55 | 08.95 | 45.45 | 44.47 | 90.71 | 50.86 | 84.77 | 50.93 | 84.68 | -1.63 | 22505 | 40208 | 22496 | -640* |
| MONTE CAPELLINO | MCP | 44.55 | 8.96 | 45.45 | 44.47 | 90.71 | 50.86 | 84.77 | 50.93 | 84.68 | -1.63 | 22505 | 40208 | 22496 | -640* |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| ROBURENT | ROB | 44.30 | 7.89 | 45.70 | 44.51 | 89.55 | 51.13 | 83.83 | 51.20 | 83.74 | -1.97 | 22637 | 39977 | 22624 | -778* |
| CASTELLACCIO | CAO | 44.43 | 8.93 | 45.57 | 44.58 | 90.64 | 51.01 | 84.73 | 51.07 | 84.63 | -1.63 | 22570 | 40127 | 22561 | -642* |
| SAO MIGUEL | SMG | 37.77 | 334.35 | 52.23 | 44.72 | 52.30 | 54.21 | 55.51 | 54.26 | 55.59 | -14.40 | 25013 | 36250 | 24227 | -6220* |
| NICE | NCE | 43.72 | 7.30 | 46.28 | 44.95 | 88.76 | 51.85 | 83.21 | 51.91 | 83.12 | -2.13 | 22950 | 39548 | 22934 | -853* |
| PERPIGNAN | PER | 42.70 | 2.88 | 47.30 | 45.06 | 83.99 | 52.94 | 79.33 | 53.00 | 79.28 | -3.58 | 23476 | 38611 | 23430 | -1466* |
| POLA | POL | 44.86 | 13.85 | 45.14 | 45.13 | 95.57 | 50.58 | 88.96 | 50.65 | 88.84 | -.13 | 22340 | 40759 | 22340 | -51* |
| ESPANOLA | EPN | 35.98 | 253.95 | 54.02 | 45.16 | 318.31 | 45.24 | 317.86 | 45.36 | 317.74 | 11.70 | 23500 | 47653 | 23012 | 4766* |
| PETROPAVLOVSK | PET | 52.90 | 158.43 | 37.10 | 45.24 | 219.76 | 44.18 | 225.37 | 43.95 | 225.50 | -5.30 | 22037 | 45831 | 21943 | -2038 |
| COIMBRA | COI | 40.22 | 351.58 | 49.78 | 45.29 | 71.54 | 55.10 | 69.79 | 55.15 | 69.75 | -7.54 | 24865 | 36412 | 24650 | -3266 |
| NOVOSIBIRSK | NVS | 55.03 | 82.90 | 34.97 | 45.34 | 158.77 | 39.93 | 155.02 | 39.93 | 155.00 | 8.44 | 17269 | 56457 | 17082 | 2535 |
| JASSY | JSS | 47.18 | 27.53 | 42.82 | 45.51 | 109.32 | 47.92 | 101.35 | 47.95 | 101.24 | 3.47 | 21100 | 43410 | 21061 | 1277* |
| MADRID | MDD | 40.42 | 356.32 | 49.58 | 46.00 | 76.50 | 55.41 | 73.57 | 55.50 | 73.52 | -5.82 | 24609 | 36709 | 24482 | -2495* |
| CASTLE ROCK | CRC | 37.24 | 237.87 | 52.76 | 46.36 | 300.27 | 47.12 | 299.72 | 47.12 | 299.66 | 16.24 | 24101 | 44746 | 23139 | 6740* |
| EBRO | EBR | 40.82 | .49 | 49.18 | 46.41 | 80.90 | 55.32 | 76.96 | 55.34 | 76.93 | -4.29 | 24464 | 37094 | 24395 | -1830* |
| TOLEDO | TOL | 39.88 | 355.95 | 50.12 | 46.45 | 75.95 | 56.09 | 73.17 | 56.21 | 73.10 | -5.76 | 25121 | 36042 | 24994 | -2523 |
| ODESSA | ODE | 46.78 | 30.88 | 43.22 | 46.51 | 112.23 | 48.34 | 104.26 | 48.36 | 104.18 | 2.28 | 21435 | 43532 | 21418 | 855 |
| LISBON | LIS | 38.72 | 350.85 | 51.28 | 46.62 | 70.28 | 57.11 | 68.84 | 57.13 | 68.85 | -7.82 | 25354 | 35369 | 25118 | -3450* |
| GROCKA | GCK | 44.63 | 20.77 | 45.37 | 46.69 | 102.07 | 50.94 | 94.80 | 50.96 | 94.73 | 1.59 | 22693 | 41018 | 22684 | 630 |
| SAN PABLO-TOLEDO | SPT | 39.55 | 355.65 | 50.45 | 46.71 | 75.53 | 56.51 | 72.85 | 56.63 | 72.79 | -6.00 | 25054 | 35987 | 24917 | -2619* |
| DALLAS | DAL | 32.99 | 263.25 | 57.01 | 47.06 | 329.42 | 46.71 | 329.45 | 46.64 | 329.31 | 7.18 | 24015 | 46818 | 23827 | 3002* |
| BARNAUL | BM* | 53.33 | 83.78 | 36.67 | 47.09 | 159.20 | 41.68 | 155.82 | 41.67 | 155.79 | 7.71 | 17958 | 55796 | 17796 | 2409* |
| L AQUILA | AQU | 42.38 | 13.32 | 47.62 | 47.41 | 94.13 | 53.69 | 87.93 | 53.74 | 87.84 | -.14 | 23943 | 38845 | 23943 | -59 |
| SURLARI | SUA | 44.68 | 26.25 | 45.32 | 47.68 | 107.21 | 50.79 | 99.69 | 50.82 | 99.60 | 2.81 | 22725 | 41607 | 22698 | 1117 |
| LA MADDALENA | LMD | 41.23 | 09.40 | 48.77 | 47.75 | 89.91 | 55.18 | 84.35 | 55.17 | 84.29 | -1.38 | 24325 | 37869 | 24318 | -586* |
| BUCHAREST | BVC | 44.42 | 26.10 | 45.58 | 47.92 | 106.98 | 51.10 | 99.51 | 51.14 | 99.41 | 2.82 | 22618 | 41603 | 22591 | 1113* |
| MT WILSON | MWC | 34.22 | 241.93 | 55.78 | 48.65 | 305.48 | 49.42 | 304.92 | 49.41 | 304.87 | 14.47 | 25106 | 43121 | 24310 | 6273* |
| LOS ANGELES | LA* | 34.05 | 241.75 | 55.95 | 48.84 | 305.33 | 49.62 | 304.77 | 49.62 | 304.73 | 14.44 | 25182 | 42912 | 24386 | 6280* |
| SIMFEROPOL | SIM | 44.83 | 34.07 | 45.17 | 48.97 | 114.44 | 50.46 | 106.84 | 50.47 | 106.77 | 4.33 | 22423 | 42770 | 22359 | 1693* |
| CAPODIMONTE | CPD | 40.86 | 14.26 | 49.14 | 49.06 | 94.51 | 55.62 | 88.42 | 55.66 | 88.33 | -.05 | 24561 | 37972 | 24561 | -21* |
| IRKUTSK | IRT | 52.17 | 104.45 | 37.83 | 49.13 | 175.83 | 43.37 | 176.45 | 43.35 | 176.45 | -2.36 | 19559 | 56902 | 19542 | -807 |
| CAPRI | CPI | 40.55 | 14.22 | 49.45 | 49.36 | 94.37 | 56.02 | 88.33 | 56.05 | 88.24 | -.07 | 24734 | 37730 | 24734 | -30* |
| SAN FERNANDO | SFS | 36.46 | 353.80 | 53.54 | 49.36 | 72.62 | 60.69 | 70.71 | 60.82 | 70.69 | -6.46 | 26593 | 33248 | 26424 | -2992* |
| PANAGYURISHTE | PAG | 42.52 | 24.18 | 47.48 | 49.39 | 104.52 | 53.38 | 97.44 | 53.40 | 97.34 | 1.86 | 23721 | 39784 | 23708 | 773 |
| TUCSON | TUC | 32.25 | 249.17 | 57.75 | 49.50 | 313.83 | 50.11 | 313.24 | 50.06 | 313.17 | 12.09 | 25618 | 42957 | 25049 | 5369 |
| KARAGANDA | KGD | 49.82 | 73.08 | 40.18 | 49.67 | 149.75 | 45.13 | 145.04 | 45.09 | 145.03 | 7.66 | 20226 | 52344 | 20045 | 2698 |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALMERIA | ALM | 36.85 | 357.54 | 53.15 | 49.69 | 76.58 | 60.58 | 73.76 | 60.66 | 73.72 | -4.93 | 26689 | 33367 | 26590 | -2294 |
| NERTSCHINSK | NK* | 51.32 | 119.62 | 38.68 | 49.87 | 188.17 | 44.81 | 191.51 | 44.81 | 191.47 | -9.65 | 20915 | 54754 | 20619 | -3506* |
| PATRICK | PAT | 28.21 | 279.39 | 61.79 | 50.68 | 348.35 | 49.66 | 350.21 | 49.61 | 350.18 | -2.52 | 24885 | 43258 | 24861 | -1094* |
| BOUZAREAH | BZR | 36.80 | 3.02 | 53.20 | 50.79 | 82.10 | 60.99 | 78.21 | 61.05 | 78.14 | -3.20 | 26656 | 33738 | 26614 | -1488* |
| ISTANBUL-KANDILL | ISK | 41.06 | 29.06 | 48.94 | 51.71 | 108.61 | 54.92 | 101.60 | 54.92 | 101.57 | 2.94 | 24534 | 39645 | 24502 | 1258* |
| GIBILMANNA | GIB | 37.99 | 14.02 | 52.01 | 51.79 | 93.34 | 59.30 | 87.69 | 59.37 | 87.62 | -.17 | 26168 | 35617 | 26168 | -78* |
| KHABAROVSK | KHB | 48.48 | 135.07 | 41.52 | 51.93 | 201.23 | 48.47 | 206.08 | 48.45 | 206.10 | -11.34 | 23994 | 48491 | 23526 | -4718* |
| AVERROES | AVE | 33.30 | 352.59 | 56.70 | 52.22 | 70.44 | 65.34 | 69.15 | 65.50 | 69.13 | -6.78 | 28095 | 30115 | 27899 | -3317* |
| NOVOKAZALINSK | NKK | 45.80 | 62.10 | 44.20 | 52.38 | 139.54 | 49.14 | 133.99 | 49.14 | 134.01 | 6.42 | 22681 | 47490 | 22539 | 2536 |
| TOYOHARA | TOH | 46.95 | 142.75 | 43.05 | 52.83 | 207.94 | 50.32 | 212.97 | 50.29 | 212.99 | -9.92 | 25041 | 44734 | 24667 | -4314* |
| YUZHNO SAKHALINS | YSS | 46.95 | 142.72 | 43.05 | 52.83 | 207.91 | 50.31 | 212.94 | 50.31 | 212.97 | -10.02 | 25255 | 44678 | 24870 | -4394 |
| OTOMARI | OTM | 46.65 | 142.77 | 43.35 | 53.12 | 208.00 | 50.61 | 212.99 | 50.62 | 213.02 | -9.81 | 25203 | 44444 | 24834 | -4294* |
| ULAN BATOR | UBA | 47.85 | 107.05 | 42.15 | 53.39 | 177.90 | 46.22 | 177.38 | 47.88 | 178.65 | -3.57 | 22670 | 54115 | 22626 | -1412* |
| TBILISI | TFS | 42.09 | 44.71 | 47.91 | 53.46 | 123.23 | 53.17 | 116.61 | 53.16 | 116.58 | 5.00 | 24161 | 42108 | 24069 | 2108 |
| DEKELEIA | DEK | 38.10 | 23.77 | 51.90 | 53.58 | 102.73 | 58.76 | 96.38 | 58.76 | 96.29 | 1.76 | 26213 | 36704 | 26201 | 805* |
| PENDELI | PEG | 38.05 | 23.86 | 51.95 | 53.66 | 102.80 | 58.82 | 96.45 | 58.82 | 96.38 | 1.77 | 26243 | 36673 | 26230 | 811* |
| ATHENS | ATH | 37.97 | 23.72 | 52.03 | 53.70 | 102.64 | 58.92 | 96.31 | 58.92 | 96.23 | 1.74 | 26287 | 36589 | 26275 | 798* |
| KARSANI | KAS | 41.83 | 44.70 | 48.17 | 53.71 | 123.16 | 53.45 | 116.59 | 53.43 | 116.56 | 4.90 | 24291 | 42193 | 24202 | 2075* |
| EL ABIOD SIDI | EAS | 32.90 | .55 | 57.10 | 54.10 | 78.46 | 66.44 | 75.49 | 66.80 | 75.44 | -3.92 | 28588 | 29751 | 28521 | -1954* |
| KEY WEST | QW* | 24.55 | 278.20 | 65.45 | 54.38 | 347.23 | 53.47 | 348.47 | 53.38 | 348.37 | -.86 | 26349 | 39611 | 26346 | -395* |
| KZIL-AGACH | KZA | 45.37 | 78.73 | 44.63 | 54.59 | 153.75 | 49.84 | 150.53 | 49.82 | 150.52 | 5.12 | 23551 | 50209 | 23457 | 2102* |
| SANTA CRUZ | SZT | 28.48 | 343.72 | 61.52 | 55.35 | 59.98 | 70.15 | 61.38 | 71.64 | 61.39 | -10.24 | 29575 | 25436 | 29104 | -5258* |
| CANARIAS | TEN | 28.48 | 343.74 | 61.52 | 55.36 | 59.99 | 70.16 | 61.38 | 71.64 | 61.39 | -10.21 | 29232 | 24047 | 28768 | -5185 |
| MEMAMBETSU | MMB | 43.91 | 144.19 | 46.09 | 55.71 | 209.68 | 53.49 | 214.34 | 53.49 | 214.35 | -8.29 | 26495 | 41352 | 26218 | -3822 |
| SAN JOSE LAJAS | SJL | 23.02 | 277.35 | 66.98 | 55.96 | 346.37 | 55.11 | 347.28 | 55.02 | 347.20 | -.00 | 26934 | 37994 | 26934 | 0* |
| HAVANA | HVN | 22.97 | 277.86 | 67.03 | 55.99 | 346.93 | 55.10 | 347.90 | 55.02 | 347.84 | -.31 | 26909 | 37949 | 26909 | -146* |
| ALMA ATA | AAA | 43.25 | 76.92 | 46.75 | 56.53 | 151.87 | 52.03 | 148.71 | 52.02 | 148.70 | 4.47 | 25416 | 47923 | 25339 | 1982 |
| URUMQI | WMQ | 43.82 | 87.70 | 46.18 | 56.82 | 161.23 | 51.67 | 159.41 | 51.67 | 159.44 | 2.61 | 25389 | 50091 | 25362 | 1157 |
| VLADIVOSTOK | VLA | 43.68 | 132.17 | 46.32 | 56.90 | 199.35 | 53.25 | 203.47 | 53.27 | 203.47 | -9.69 | 26961 | 44974 | 26576 | -4540 |
| CHANGCHUN | CNH | 43.83 | 125.30 | 46.17 | 57.15 | 193.44 | 52.81 | 196.92 | 52.79 | 196.93 | -8.91 | 26609 | 47480 | 26288 | -4121* |
| MAITUN | MAI | 43.25 | 132.33 | 46.75 | 57.32 | 199.54 | 53.70 | 203.61 | 53.72 | 203.62 | -9.60 | 26929 | 44763 | 26552 | -4491* |
| KELES | KEL | 41.42 | 69.21 | 48.58 | 57.55 | 144.84 | 53.80 | 140.99 | 53.78 | 140.98 | 4.62 | 25720 | 45626 | 25636 | 2072* |
| TASHKENT | TKT | 41.33 | 69.62 | 48.67 | 57.69 | 145.18 | 53.90 | 141.40 | 53.89 | 141.40 | 4.57 | 25804 | 45303 | 25722 | 2060 |
| ASHKHABAD | ASH | 37.95 | 58.11 | 52.05 | 59.57 | 134.30 | 57.30 | 129.78 | 57.31 | 129.77 | 4.03 | 27589 | 40940 | 27521 | 1941 |
| KSARA | KSA | 33.82 | 35.89 | 56.18 | 60.00 | 112.95 | 62.93 | 107.39 | 62.91 | 107.30 | 2.82 | 28879 | 34262 | 28844 | 1421* |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | COORDINATES | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| TEOLOYUCAN | TEO | 19.75 | 260.82 | 70.25 | 60.46 | 328.60 | 61.03 | 328.11 | | | 7.65 | 29397 | 32185 | 29135 | 3913* |
| VIEQUES | VQS | 18.15 | 294.55 | 71.85 | 60.59 | 5.41 | 60.24 | 9.13 | | | -10.37 | 27392 | 31021 | 26945 | -4931* |
| SAN JUAN | SJG | 18.11 | 293.85 | 71.89 | 60.61 | 4.64 | 60.14 | 8.22 | | | -9.60 | 27299 | 31010 | 26916 | -4554 |
| TEHRAN | TEH | 35.74 | 51.38 | 54.26 | 60.75 | 127.73 | 59.79 | 122.90 | 59.77 | 122.90 | 3.53 | 28179 | 38189 | 28126 | 1735* |
| MEXICO | TE* | 19.42 | 260.92 | 70.58 | 60.78 | 328.75 | 61.36 | 328.25 | | | 7.75 | 31151 | 20941 | 30866 | 4201* |
| TACUBAYA | TAC | 19.41 | 260.81 | 70.59 | 60.80 | 328.63 | 61.39 | 328.13 | | | 7.65 | 29495 | 31769 | 29232 | 3926* |
| CUAJIMALPA | CUA | 19.37 | 260.72 | 70.63 | 60.84 | 328.54 | 61.44 | 328.03 | | | 7.67 | 29508 | 31718 | 29244 | 3938* |
| MIZUSAWA | MIZ | 39.01 | 141.08 | 50.99 | 60.85 | 207.69 | 58.42 | 211.60 | 58.42 | 211.60 | -7.40 | 28858 | 37235 | 28617 | -3717 |
| BEIJING | BJI | 40.04 | 116.18 | 49.96 | 61.22 | 185.74 | 56.35 | 187.77 | 56.36 | 187.78 | -5.99 | 29611 | 46183 | 29449 | -3091 |
| ONAGAWA | ONW | 38.43 | 141.47 | 51.57 | 61.39 | 208.11 | 59.00 | 211.92 | 59.04 | 211.94 | -7.27 | 29020 | 36935 | 28787 | -3672* |
| MODIIM | MOD | 31.93 | 34.98 | 58.07 | 61.69 | 111.64 | 65.29 | 106.37 | 65.28 | 106.32 | 2.52 | 29975 | 32156 | 29946 | 1318* |
| NITSANIM | NCK | 31.73 | 34.60 | 58.27 | 61.81 | 111.23 | 65.57 | 105.99 | 65.53 | 105.92 | 2.47 | 30064 | 31918 | 30036 | 1296* |
| AMATSIA | AMT | 31.55 | 34.92 | 58.45 | 62.04 | 111.48 | 65.74 | 106.28 | 65.71 | 106.22 | 2.56 | 30447 | 31765 | 30417 | 1362 |
| SEOUL | SYO | 38.58 | 127.05 | 51.42 | 62.29 | 195.36 | 58.30 | 198.43 | 58.30 | 198.45 | -7.64 | 29561 | 41729 | 29299 | -3930* |
| HELWAN | HLW | 29.86 | 31.34 | 60.14 | 63.04 | 107.69 | 68.21 | 102.70 | 68.25 | 102.64 | 1.98 | 31031 | 29386 | 31012 | 1072* |
| MISALLAT | MLT | 29.52 | 30.89 | 60.48 | 63.29 | 107.18 | 68.68 | 102.24 | 68.76 | 102.21 | 1.98 | 31299 | 28657 | 31280 | 1082 |
| ZINSEN | ZIN | 37.48 | 126.63 | 52.52 | 63.42 | 195.06 | 59.43 | 197.96 | 59.42 | 197.98 | -7.23 | 30179 | 40660 | 29939 | -3798* |
| KAKIOKA | KAK | 36.23 | 140.19 | 53.77 | 63.69 | 207.26 | 61.27 | 210.76 | 61.25 | 210.73 | -6.58 | 30192 | 34651 | 29993 | -3464 |
| TOKYO | TOK | 35.69 | 139.75 | 54.31 | 64.28 | 206.93 | 61.82 | 210.34 | 61.73 | 210.30 | -6.58 | 30256 | 34646 | 30057 | -3467* |
| KANOZAN | KNZ | 35.25 | 139.96 | 54.75 | 64.69 | 207.17 | 62.25 | 210.52 | 62.25 | 210.51 | -6.24 | 30539 | 33675 | 30358 | -3320 |
| MIYAZU | MIU | 35.32 | 135.12 | 54.68 | 64.93 | 203.13 | 60.62 | 205.08 | 62.01 | 206.01 | -6.86 | 30813 | 35616 | 30592 | -3680* |
| TAMANRASSET | TAM | 22.79 | 5.53 | 67.21 | 64.93 | 80.86 | 79.25 | 78.48 | 86.02 | 78.39 | 3.28 | 32897 | 17263 | 32843 | 1884 |
| TSINGTAO | TSI | 36.07 | 120.32 | 53.93 | 65.08 | 189.55 | 60.64 | 191.71 | 60.64 | 191.71 | -5.73 | 31157 | 40720 | 31001 | -3111* |
| LANZHOU | LZH | 36.09 | 103.85 | 53.91 | 65.19 | 174.88 | 60.30 | 175.30 | 60.29 | 175.25 | -1.78 | 31598 | 42469 | 31582 | -990 |
| MIDWAY | MDY | 28.21 | 182.62 | 61.79 | 65.61 | 247.73 | 65.25 | 248.69 | 65.28 | 248.61 | 10.07 | 26969 | 24708 | 26554 | 4716* |
| KATUURA | KAT | 33.63 | 135.95 | 56.37 | 66.64 | 203.73 | 63.76 | 206.67 | 63.78 | 206.73 | -6.22 | 31463 | 33448 | 31278 | -3409* |
| SIMOSATO | SSO | 33.58 | 135.94 | 56.42 | 66.70 | 203.74 | 63.83 | 206.67 | 63.84 | 206.71 | -6.20 | 31489 | 33385 | 31305 | -3401* |
| HATIZYO | HTY | 33.07 | 139.83 | 56.93 | 66.82 | 207.28 | 64.42 | 210.31 | 64.48 | 210.32 | -7.68 | 31415 | 31770 | 31133 | -4201 |
| ASO | ASO | 32.88 | 131.01 | 57.12 | 67.74 | 199.35 | 64.36 | 201.99 | 64.37 | 202.01 | -6.06 | 32222 | 34058 | 32042 | -3402* |
| QUETTA | QUE | 30.19 | 66.95 | 59.81 | 68.41 | 140.96 | 65.75 | 138.71 | 65.76 | 138.72 | 1.28 | 32802 | 33512 | 32794 | 738 |
| HONOLULU | HON | 21.32 | 202.00 | 68.68 | 68.65 | 267.96 | 68.17 | 268.68 | 68.14 | 268.68 | 11.53 | 27705 | 22311 | 27145 | 5542 |
| M BOUR | MBO | 14.39 | 343.04 | 75.61 | 69.09 | 56.40 | 85.95 | 58.53 | | | -12.10 | 31944 | 7220 | 31234 | -6697 |
| COSTA RICA | SNJ | 9.91 | 276.04 | 80.09 | 69.11 | 345.69 | 68.71 | 345.52 | | | 3.05 | 29778 | 23168 | 29736 | 1584* |
| KANOYA | KNY | 31.42 | 130.88 | 58.58 | 69.21 | 199.35 | 65.85 | 201.80 | 65.87 | 201.81 | -5.44 | 32988 | 31976 | 32839 | -3127 |
| SABHAWALA | SAB | 30.36 | 77.80 | 59.64 | 69.42 | 150.94 | 66.00 | 149.52 | 66.04 | 149.54 | .38 | 33863 | 34446 | 33862 | 227 |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEHRA DUN | DDI | 30.32 | 78.06 | 59.68 | 69.48 | 151.17 | 66.06 | 149.78 | 66.06 | 149.80 | .50 | 33817 | 34734 | 33816 | 295* |
| LUKIAPANG | LKP | 31.32 | 121.04 | 58.68 | 69.81 | 190.41 | 65.66 | 192.18 | 65.65 | 192.16 | -4.57 | 33722 | 34711 | 33615 | -2687* |
| ZIKAWEI | ZKW | 31.21 | 121.44 | 58.79 | 69.91 | 190.77 | 65.79 | 192.56 | 65.77 | 192.55 | -4.61 | 33745 | 34495 | 33636 | -2712* |
| SHESHAN | SSH | 31.10 | 121.19 | 58.90 | 70.03 | 190.54 | 65.90 | 192.31 | 65.89 | 192.29 | -4.40 | 33711 | 34283 | 33611 | -2590 |
| WUHAN | WHN | 30.53 | 114.56 | 59.47 | 70.77 | 184.52 | 66.40 | 185.67 | 66.38 | 185.67 | -3.13 | 34738 | 34370 | 34686 | -1897* |
| LHASA | LSA | 29.70 | 91.15 | 60.30 | 71.10 | 163.11 | 67.15 | 162.62 | 67.18 | 162.59 | -.28 | 35250 | 34323 | 35250 | -172* |
| CHICHIJIMA | CBI | 27.08 | 142.17 | 62.92 | 72.60 | 210.15 | 70.56 | 212.32 | 70.62 | 212.35 | -3.13 | 32694 | 24133 | 32645 | -1792 |
| JAIPUR | JAI | 26.92 | 75.80 | 63.08 | 72.65 | 148.69 | 69.69 | 147.54 | 69.70 | 147.53 | -.76 | 35737 | 29594 | 35734 | -477 |
| FUQUENE | FUQ | 5.47 | 286.26 | 84.53 | 73.23 | 356.53 | 71.79 | 357.35 | | | -2.27 | 28944 | 18761 | 28921 | -1146 |
| PARAMARIBO | PAB | 5.81 | 304.78 | 84.19 | 73.28 | 15.78 | 73.42 | 19.04 | | | -14.48 | 28493 | 15430 | 27588 | -7124* |
| SHILLONG | SHL | 25.57 | 91.88 | 64.43 | 75.27 | 163.51 | 71.79 | 163.22 | 71.81 | 163.22 | -.75 | 37468 | 27424 | 37465 | -490* |
| FREETOWN | FTN | 08.47 | 346.78 | 81.53 | 75.55 | 59.14 | 93.00 | 60.48 | | | -12.19 | 31154 | -1346 | 30452 | -6578* |
| TAIPEI | TAP | 25.04 | 121.51 | 64.96 | 76.07 | 191.11 | 72.34 | 192.33 | 72.32 | 192.32 | -2.99 | 36473 | 26012 | 36423 | -1902* |
| LUNPING | LNP | 25.00 | 121.17 | 65.00 | 76.11 | 190.79 | 72.37 | 191.98 | 72.36 | 191.98 | -2.86 | 36584 | 25721 | 36538 | -1825 |
| UJJAIN | UJJ | 23.18 | 75.78 | 66.82 | 76.35 | 148.23 | 73.80 | 147.52 | 74.02 | 147.48 | -.51 | 37031 | 24388 | 37030 | -330* |
| ZARIA | ZAR | 11.15 | 07.65 | 78.85 | 76.74 | 80.47 | 92.15 | 79.50 | | | -4.03 | 33634 | 527 | 33551 | -2364* |
| KONTAGORA | KNT | 10.40 | 05.45 | 79.60 | 77.05 | 78.14 | 92.90 | 77.44 | | | -4.73 | 33251 | -601 | 33138 | -2742* |
| WAKE ISLAND | WKE | 19.20 | 166.70 | 70.80 | 77.19 | 234.41 | 76.54 | 235.15 | | | 6.97 | 31011 | 14768 | 30782 | 3763* |
| BARRACKPORE | BAC | 22.78 | 88.36 | 67.22 | 77.84 | 160.02 | 74.79 | 159.80 | 74.86 | 159.76 | -.83 | 38598 | 23671 | 38594 | -559* |
| GUANGZHOU | GZH | 23.09 | 113.34 | 66.91 | 78.21 | 183.52 | 74.36 | 184.16 | 74.62 | 203.81 | -1.51 | 38104 | 23696 | 38090 | -1004 |
| AU TAU | AUT | 22.45 | 114.05 | 67.55 | 78.85 | 184.19 | 75.04 | 184.82 | 75.11 | 184.83 | -1.58 | 38188 | 22969 | 38173 | -1053* |
| CHA PA | CPA | 22.35 | 103.83 | 67.65 | 78.92 | 174.57 | 75.36 | 174.82 | 75.40 | 174.77 | -.78 | 38929 | 23036 | 38925 | -530* |
| HONG KONG | HKC | 22.36 | 114.22 | 67.64 | 78.93 | 184.36 | 75.13 | 184.99 | 75.39 | 184.98 | -1.55 | 38259 | 22569 | 38245 | -1035* |
| KUMASI | KUM | 06.70 | 358.43 | 83.30 | 79.36 | 70.46 | 96.42 | 70.63 | | | -7.85 | 31392 | -5506 | 31098 | -4288* |
| IBADAN | IBD | 7.43 | 3.90 | 82.57 | 79.67 | 76.02 | 95.89 | 75.74 | | | -5.86 | 32198 | -4819 | 32030 | -3287* |
| ALIBAG | ABG | 18.64 | 72.87 | 71.36 | 80.56 | 144.94 | 78.68 | 144.64 | | | -.77 | 38282 | 17576 | 38278 | -518 |
| TATUOCA | TTB | -1.21 | 311.49 | 91.21 | 80.71 | 22.19 | 81.30 | 24.42 | | | -17.85 | 27758 | 5656 | 26421 | -8512 |
| TOUNGOO | TGO | 18.93 | 96.45 | 71.07 | 82.11 | 167.46 | 79.25 | 167.65 | | | -.69 | 40179 | 17195 | 40176 | -484* |
| HYDERABAD | HYB | 17.41 | 78.56 | 72.59 | 82.37 | 150.23 | 80.37 | 150.23 | | | -1.64 | 39715 | 15194 | 39699 | -1140 |
| TALARA | TAL | -04.63 | 278.70 | 94.63 | 83.52 | 349.07 | 83.06 | 349.11 | | | 4.44 | 29225 | 7385 | 29137 | 2262* |
| EUSEBIO | EUS | -3.89 | 321.56 | 93.89 | 84.29 | 32.06 | 91.26 | 33.75 | | | -21.27 | 26896 | -2023 | 25064 | -9757* |
| PALMYRA ISLAND | PAI | 05.88 | 197.92 | 84.12 | 84.57 | 267.20 | 83.45 | 267.45 | | | 9.68 | 32308 | 7926 | 31848 | 5432* |
| MOCA | MFP | 3.34 | 8.66 | 86.66 | 84.59 | 79.92 | 99.98 | 79.79 | | | -5.77 | 30892 | -10470 | 30735 | -3106* |
| BAGUIO | BAG | 16.42 | 120.60 | 73.58 | 84.71 | 190.60 | 81.36 | 191.18 | | | -.95 | 39058 | 13113 | 39053 | -648* |
| ADDIS ABABA | AAE | 9.03 | 38.77 | 80.97 | 84.83 | 110.50 | 90.96 | 109.98 | | | -.58 | 36075 | 407 | 36073 | -367 |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | OBSERVED OR IGRF CALCULATED(*) | | | | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT E LONG | D | H | Z | X | Y |
| BANGUI | BNG | 4.44 | 18.57 | 85.56 | 85.46 | 89.86 | 98.43 | 89.59 | | -3.12 | 32150 | -9086 | 32102 | -1750 |
| CHICLAYO | CCL | -06.80 | 280.20 | 96.80 | 85.64 | 350.64 | 84.92 | 350.74 | | 4.13 | 28768 | 5381 | 28693 | 2072* |
| GUAM | GUA | 13.58 | 144.87 | 76.42 | 85.73 | 214.26 | 84.18 | 214.98 | | 1.92 | 35805 | 7239 | 35785 | 1205 |
| FANNING | FAN | 3.91 | 200.61 | 86.09 | 85.98 | 270.23 | 85.14 | 270.43 | | 9.48 | 32665 | 5985 | 32219 | 5380* |
| ANTIPOLO | ANO | 14.60 | 121.17 | 75.40 | 86.50 | 191.21 | 83.27 | 191.73 | | -.61 | 39293 | 10232 | 39291 | -418* |
| MANILA | MAN | 14.58 | 120.98 | 75.42 | 86.54 | 191.02 | 83.30 | 191.55 | | -.60 | 39320 | 10209 | 39318 | -412* |
| MUNTINLUPA | MUT | 14.38 | 121.02 | 75.62 | 86.74 | 191.07 | 83.51 | 191.58 | | -.63 | 39221 | 9691 | 39219 | -432 |
| MADRAS | MX* | 13.07 | 80.25 | 76.93 | 86.86 | 151.44 | 85.34 | 151.84 | | -2.21 | 40321 | 7361 | 40291 | -1555* |
| BANGKOK | BKK | 13.72 | 100.57 | 76.28 | 87.47 | 171.23 | 85.06 | 171.55 | | -.32 | 41080 | 8248 | 41079 | -229* |
| CHIMBOTE | CMB | -09.10 | 281.40 | 99.10 | 87.90 | 351.90 | 86.87 | 352.11 | | 4.00 | 28261 | 3257 | 28192 | 1971* |
| MAJURO | MJR | 7.08 | 171.38 | 82.92 | 88.36 | 241.01 | 87.26 | 241.32 | | 9.83 | 33771 | 3353 | 33275 | 5766* |
| ANNAMALAINAGAR | ANN | 11.37 | 79.68 | 78.63 | 88.50 | 150.72 | 87.22 | 151.24 | | -2.60 | 40309 | 4213 | 40267 | -1832 |
| KODAIKANAL | KOD | 10.23 | 77.46 | 79.77 | 89.40 | 148.43 | 88.37 | 148.97 | | -2.38 | 39265 | 2444 | 39231 | -1636 |
| JALUIT | JAL | 5.92 | 169.65 | 84.08 | 89.80 | 239.53 | 88.77 | 239.87 | | 9.60 | 34205 | 1537 | 33726 | 5704* |
| JARVIS ISLAND | JRV | -.38 | 199.97 | 90.38 | 90.29 | 270.43 | 89.51 | 270.51 | | 9.66 | 33546 | 778 | 33070 | 5629* |
| CEBU | CCP | 10.30 | 123.90 | 79.70 | 90.67 | 194.07 | 87.78 | 194.42 | | .15 | 39400 | 3419 | 39400 | 103* |
| ETTAYAPURAM | ETT | 09.00 | 78.00 | 81.00 | 90.67 | 148.84 | 89.76 | 149.45 | | -2.94 | 39990 | 426 | 39937 | -2051* |
| HUANCAYO | HUA | -12.05 | 284.66 | 102.05 | 90.76 | 355.17 | 89.00 | 355.52 | | 2.71 | 27225 | 985 | 27194 | 1290 |
| TRIVANDRUM | TRD | 8.48 | 76.95 | 81.52 | 91.08 | 147.75 | 90.25 | 148.37 | | -2.77 | 39896 | -232 | 39849 | -1928 |
| CUZCO | CUS | -13.53 | 288.03 | 103.53 | 92.21 | 358.48 | 89.86 | 358.81 | | .82 | 26566 | -154 | 26563 | 380* |
| MOGADISCIO | MOG | 02.03 | 45.35 | 87.97 | 92.89 | 115.68 | 97.53 | 116.65 | | -.78 | 33547 | -9945 | 33544 | -457* |
| KOROR | KOR | 7.34 | 134.50 | 82.66 | 92.95 | 204.72 | 90.68 | 204.88 | | 1.45 | 38172 | -1184 | 38160 | 966* |
| PALAU | PLA | 7.33 | 134.48 | 82.67 | 92.95 | 204.70 | 90.68 | 204.86 | | 1.45 | 38174 | -1184 | 38162 | 966* |
| BINZA | BIN | -4.27 | 15.37 | 94.27 | 93.34 | 85.01 | 106.87 | 85.68 | | -6.70 | 26563 | -19703 | 26382 | -3099* |
| DAVAO | DAV | 7.05 | 125.38 | 82.95 | 93.84 | 195.70 | 91.13 | 195.97 | | .75 | 39308 | -1588 | 39305 | 515* |
| LWIRO | LWI | -2.25 | 28.80 | 92.25 | 94.00 | 98.59 | 103.44 | 99.82 | | -2.28 | 29160 | -17547 | 29137 | -1160* |
| YAUCA | YAU | -15.53 | 285.33 | 105.53 | 94.24 | 355.88 | 92.06 | 356.33 | | 3.27 | 26443 | -2149 | 26400 | 1508* |
| NAIROBI | NAI | -1.33 | 36.82 | 91.33 | 94.62 | 106.65 | 101.69 | 107.87 | | -1.04 | 30542 | -15546 | 30537 | -554* |
| CHARACATO | ARE | -16.47 | 288.52 | 106.47 | 95.15 | 358.96 | 92.32 | 359.33 | | 1.29 | 25807 | -2620 | 25800 | 581* |
| LA PAZ | LPB | -16.54 | 291.90 | 106.54 | 95.21 | 2.22 | 92.38 | 2.41 | | -1.32 | 25376 | -2518 | 25369 | -585* |
| PENANG | PNN | 4.47 | 100.15 | 85.53 | 96.70 | 170.52 | 95.17 | 171.04 | | -.14 | 40768 | -6075 | 40768 | -100* |
| LUANDA | LUA | -8.92 | 13.17 | 98.92 | 97.47 | 81.94 | 111.05 | 82.70 | | -9.34 | 23227 | -22792 | 22919 | -3770* |
| TUNTUNGAN | TUN | 3.51 | 98.56 | 86.49 | 97.60 | 168.89 | 96.20 | 169.46 | | -.46 | 40345 | -9619 | 40344 | -324* |
| SINGAPORE | SG* | 1.28 | 103.85 | 88.72 | 99.98 | 174.17 | 98.20 | 174.68 | | .32 | 39857 | -12780 | 39856 | 223* |
| DAR ES SALAAM | DM* | -6.82 | 39.32 | 96.82 | 100.48 | 108.08 | 107.10 | 110.02 | | -2.60 | 26712 | -20876 | 26685 | -1212* |

(ALL VALUES AS OF 1980.5)

| OBSERVATORY | CODE | GEOGRAPHIC COORDINATES LAT | E LONG | CO-LAT | GEOMAGNETIC MODELS DIPOLE CO-LAT | E LONG | GUSTAFFSSON CO-LAT | E LONG | TSYGANENKO CO-LAT | E LONG | ANNUAL VALUES OBSERVED OR IGRF CALCULATED(*) D | H | Z | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LA QUIACA | LQA | -22.10 | 294.40 | 112.10 | 100.81 | 4.52 | 98.54 | 4.44 | 98.17 | 4.44 | -1.84 | 23584 | -6559 | 23572 | -759 |
| VASSOURAS | VSS | -22.40 | 316.35 | 112.40 | 102.21 | 25.20 | 104.81 | 22.79 | 104.75 | 22.72 | -19.23 | 21119 | -11172 | 19940 | -6956 |
| HOLLANDIA | HNA | -2.57 | 140.51 | 92.57 | 102.25 | 211.68 | 100.98 | 211.38 | | | 4.16 | 37411 | -15199 | 37312 | 2714* |
| RIO DE JANEIRO | RDJ | -22.91 | 316.83 | 112.91 | 102.75 | 25.60 | 105.42 | 23.05 | 105.38 | 22.99 | -19.30 | 20856 | -11593 | 19684 | -6893* |
| SAO JOSE COMPOS | SJB | -23.20 | 314.13 | 113.20 | 102.83 | 23.04 | 104.63 | 20.72 | 104.58 | 20.65 | -17.60 | 21081 | -10848 | 20094 | -6374* |
| KARAVIA | KVA | -11.64 | 27.42 | 101.64 | 102.93 | 95.37 | 112.84 | 97.22 | | | -5:66 | 21545 | -25323 | 21440 | -2125* |
| ELIZABETHVILLE | ELI | -11.66 | 27.47 | 101.66 | 102.96 | 95.40 | 112.86 | 97.26 | | | -5.66 | 21545 | -25323 | 21440 | -2125* |
| PAMATAI | PPT | -17.57 | 210.43 | 107.57 | 105.10 | 284.08 | 106.08 | 284.32 | | | 11.21 | 31375 | -18907 | 30776 | 6103 |
| TAHITI | TAH | -17.56 | 210.39 | 107.56 | 105.10 | 284.03 | 106.07 | 284.28 | | | 12.25 | 32233 | -19016 | 31499 | 6839* |
| APIA | API | -13.81 | 188.23 | 103.81 | 105.75 | 261.58 | 105.23 | 261.90 | | | 12.48 | 34393 | -19991 | 33579 | 7436 |
| KUYPER | KUY | -6.03 | 106.73 | 96.03 | 107.33 | 177.02 | 105.92 | 177.59 | | | .45 | 37452 | -23906 | 37451 | 294* |
| TANGERANG | TNG | -6.17 | 106.63 | 96.17 | 107.46 | 176.91 | 106.08 | 177.48 | | | .37 | 37307 | -23904 | 37306 | 243 |
| BATAVIA | BTV | -6.18 | 106.83 | 96.18 | 107.48 | 177.12 | 106.08 | 177.69 | | | .45 | 37396 | -24118 | 37395 | 294* |
| EASTER ISLAND | EIC | -27.17 | 250.58 | 117.17 | 108.18 | 323.87 | 110.21 | 325.89 | 110.18 | 325.87 | 15.14 | 27342 | -20533 | 26393 | 7141* |
| PORT MORESBY | PMG | -9.41 | 147.15 | 99.41 | 108.27 | 219.29 | 107.93 | 219.01 | | | 6.47 | 35971 | -23643 | 35742 | 4056 |
| TSUMEB | TSU | -19.22 | 17.70 | 109.22 | 108.45 | 84.24 | 119.96 | 85.15 | | | -13.83 | 15873 | -27011 | 15413 | -3794 |
| PILAR | PIL | -31.67 | 296.12 | 121.67 | 110.40 | 5.91 | 107.70 | 5.66 | 107.45 | 5.70 | .29 | 21416 | -11985 | 21416 | 109 |
| SANTIAGO | SNT | -33.45 | 289.30 | 123.45 | 112.13 | 359.73 | 109.04 | .81 | 109.00 | .82 | 7.14 | 22161 | -13782 | 21989 | 2754* |
| TANANARIVE | TAN | -18.92 | 47.55 | 108.92 | 113.88 | 113.95 | 119.40 | 115.93 | | | -13.28 | 19579 | -27232 | 19055 | -4497* |
| LAS ACACIAS | LAS | -35.01 | 302.31 | 125.01 | 113.92 | 11.38 | 111.49 | 10.12 | 111.36 | 10.07 | -3.75 | 20184 | -13821 | 20141 | -1320* |
| MAURITIUS | MRI | -20.09 | 57.55 | 110.09 | 116.75 | 123.97 | 120.49 | 125.06 | 120.50 | 125.06 | -17.73 | 21484 | -29691 | 20464 | -6543* |
| HARTEBEESTHOEK | HBK | -25.88 | 27.71 | 115.88 | 116.93 | 92.49 | 126.10 | 93.60 | 126.18 | 93.65 | -16.06 | 13197 | 26924 | 12681 | -3652 |
| PLAISANCE | PLS | -20.43 | 57.67 | 110.43 | 117.10 | 124.02 | 120.84 | 125.06 | 120.85 | 125.06 | -18.17 | 21343 | -29865 | 20279 | -6656* |
| MAPUTO | LMM | -25.92 | 32.58 | 115.92 | 117.91 | 97.31 | 126.22 | 98.66 | 126.27 | 98.71 | -15.86 | 14011 | -27108 | 13478 | -3829 |
| TRELEW | TRW | -43.25 | 294.69 | 133.25 | 121.95 | 4.36 | 118.30 | 5.23 | 118.15 | 5.27 | 7.18 | 21048 | -18344 | 20883 | 2631* |
| CAPE GOOD HOPE | CGH | -33.93 | 18.48 | 123.93 | 122.96 | 81.40 | 131.56 | 80.30 | 131.66 | 80.36 | -23.68 | 11287 | -25855 | 10337 | -4533* |
| CAPE TOWN | CTO | -33.95 | 18.47 | 123.95 | 122.98 | 81.38 | 131.58 | 80.27 | 131.67 | 80.34 | -23.69 | 11286 | -25852 | 10335 | -4535* |
| HERMANUS | HER | -34.43 | 19.23 | 124.43 | 123.58 | 81.98 | 131.99 | 80.87 | 132.07 | 80.93 | -23.51 | 11363 | -25753 | 10420 | -4533 |
| BRISBANE | BRS | -27.53 | 152.92 | 117.53 | 125.35 | 228.63 | 126.56 | 226.68 | 126.80 | 228.28 | 10.97 | 28572 | -46059 | 28050 | 5437* |
| WATHEROO | WAT | -30.32 | 115.88 | 120.32 | 131.55 | 187.24 | 132.71 | 185.97 | 132.71 | 186.02 | -2.49 | 24207 | -52753 | 24184 | -1052* |
| MAGALLANES | MGS | -53.20 | 289.10 | 143.20 | 131.88 | 359.60 | 127.59 | 3.02 | 127.54 | 3.03 | 15.90 | 22438 | -26116 | 21580 | 6147* |
| SYDNEY | SN* | -33.88 | 151.18 | 123.88 | 131.95 | 227.81 | 133.89 | 227.82 | 133.92 | 227.81 | 12.33 | 24624 | -52530 | 24056 | 5258* |
| GNANGARA | GNA | -31.78 | 115.95 | 121.78 | 133.01 | 187.40 | 134.37 | 185.90 | 134.37 | 185.94 | -3.29 | 23409 | -53652 | 23370 | -1346 |
| NEW YEARS ISLAND | NYI | -54.65 | 295.85 | 144.65 | 133.38 | 4.97 | 129.03 | 7.26 | 128.91 | 7.26 | 11.71 | 21851 | -25866 | 21396 | 4435* |
| CANBERRA | CAN | -35.32 | 149.36 | 125.32 | 133.61 | 226.14 | 135.71 | 226.06 | 135.76 | 225.62 | 12.14 | 23813 | -53770 | 23280 | 5011 |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED | OR | IGRF | CALCULATED(*) | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| ORANGE BAY | OB* | -55.52 | 291.92 | 145.52 | 134.19 | 1.83 | 129.77 | 5.11 | 129.71 | 5.08 | 14.93 | 22326 | -27329 | 21572 | 5752* |
| SOUTH GEORGIA | SGE | -54.28 | 323.52 | 144.28 | 134.50 | 27.19 | 132.39 | 24.33 | 132.36 | 24.26 | -8.72 | 18227 | -24251 | 18016 | -2764 |
| TOOLANGI | TOO | -37.53 | 145.47 | 127.53 | 136.34 | 222.30 | 138.58 | 221.94 | 138.64 | 221.97 | 11.33 | 21739 | -56548 | 21315 | 4271* |
| MELBOURNE | MEL | -37.83 | 144.98 | 127.83 | 136.70 | 221.82 | 138.97 | 221.42 | 139.03 | 221.45 | 11.21 | 21489 | -56855 | 21079 | 4178* |
| MARTIN DE VIVIES | AMS | -37.83 | 77.57 | 127.83 | 137.12 | 142.00 | 139.17 | 137.80 | 139.20 | 137.72 | -38.41 | 19058 | -45530 | 14934 | -11840* |
| AMBERLEY | AML | -43.15 | 172.72 | 133.15 | 137.33 | 253.79 | 139.83 | 255.90 | 139.87 | 255.92 | 22.39 | 21312 | -54641 | 19705 | 8118* |
| EYREWELL | EYR | -43.42 | 172.35 | 133.42 | 137.65 | 253.51 | 140.18 | 255.63 | 140.23 | 255.66 | 22.51 | 21116 | -54927 | 19507 | 8084* |
| CHRISTCHURCH | CHR | -43.53 | 172.62 | 133.53 | 137.72 | 253.84 | 140.25 | 255.98 | 140.29 | 256.01 | 22.62 | 21087 | -54935 | 19465 | 8110* |
| MARION ISLAND | MRN | -46.88 | 37.85 | 136.88 | 139.25 | 95.86 | 141.92 | 92.03 | 141.87 | 92.09 | -36.91 | 15530 | -28837 | 12417 | -9327* |
| LAUDER | LAU | -45.04 | 169.68 | 135.04 | 139.72 | 251.36 | 142.45 | 253.60 | 142.47 | 253.57 | 23.17 | 19856 | -56690 | 18254 | 7813* |
| ORCADAS DEL SUR | ORC | -60.73 | 315.22 | 150.73 | 140.24 | 19.30 | 136.31 | 19.27 | 136.26 | 19.23 | 1.88 | 20327 | -28905 | 20316 | 667* |
| PORT ALFRED | CZT | -46.43 | 51.87 | 136.43 | 141.50 | 110.56 | 143.25 | 105.45 | 143.22 | 105.44 | -42.44 | 16295 | -33528 | 12024 | -10998 |
| GONZALES VIDELA | GVD | -64.82 | 297.15 | 154.82 | 143.56 | 5.40 | 138.89 | 9.76 | 138.81 | 9.66 | 16.00 | 22085 | -34623 | 21229 | 6087* |
| ARGENTINE ISLAND | AIA | -65.25 | 295.74 | 155.25 | 143.96 | 4.37 | 139.30 | 9.17 | 139.22 | 8.99 | 16.83 | 22360 | -34742 | 21401 | 6477 |
| AUCKLAND ISLAND | AU* | -50.87 | 166.08 | 140.87 | 145.98 | 250.20 | 149.22 | 253.12 | 149.27 | 253.19 | 27.46 | 15805 | -60953 | 14024 | 7288* |
| CAMPBELL ISLAND | CAI | -52.50 | 169.20 | 142.50 | 146.96 | 254.43 | 150.26 | 258.16 | 150.25 | 258.14 | 29.97 | 15322 | 61148 | 13273 | 7654* |
| KERGUELEN | KG* | -49.15 | 70.20 | 139.15 | 147.23 | 129.91 | 148.25 | 121.49 | 148.27 | 121.48 | -52.52 | 18344 | -44414 | 11162 | -14557* |
| PORT-AUX-FRANCAI | KGL | -49.35 | 70.20 | 139.35 | 147.43 | 129.82 | 148.41 | 121.31 | 148.44 | 121.31 | -51.40 | 18466 | -43814 | 11521 | -14432* |
| MACQUARIE ISLAND | MCQ | -54.50 | 158.95 | 144.50 | 150.75 | 244.40 | 154.51 | 247.37 | 154.52 | 247.40 | 28.48 | 12723 | -63768 | 11183 | 6067 |
| HEARD ISLAND | HII | -53.03 | 73.37 | 143.03 | 151.47 | 131.89 | 151.88 | 121.31 | 152.10 | 121.20 | -57.14 | 17965 | -47263 | 9748 | -15091* |
| EIGHTS | EGS | -75.23 | 282.83 | 165.23 | 153.95 | 356.08 | 149.59 | 5.76 | 149.60 | 5.71 | 32.59 | 20278 | -46498 | 17085 | 10922* |
| SANAE | SNA | -70.33 | 357.51 | 160.33 | 153.95 | 45.27 | 149.94 | 43.32 | 149.93 | 43.45 | -17.81 | 18999 | -36266 | 18088 | -5813 |
| NORWAY STATION | NWS | -70.50 | 357.47 | 160.50 | 154.10 | 45.08 | 150.05 | 43.19 | 150.03 | 43.22 | -17.67 | 18912 | -36508 | 18020 | -5740* |
| LAZAREV | LZV | -69.97 | 12.90 | 159.97 | 155.97 | 56.70 | 152.03 | 52.93 | 152.06 | 52.93 | -27.51 | 18687 | -37020 | 16574 | -8632* |
| HALLEY BAY | HBA | -75.52 | 333.32 | 165.52 | 156.04 | 25.20 | 150.98 | 28.21 | 150.76 | 28.19 | -1.50 | 20200 | -41500 | 20193 | -529* |
| NOVOLAZAREVSKAYA | NVL | -70.77 | 11.83 | 160.77 | 156.49 | 54.96 | 152.37 | 51.51 | 152.39 | 51.53 | -27.16 | 18640 | -37470 | 16584 | -8510 |
| ROI BAUDOUIN | RBD | -70.43 | 24.30 | 160.43 | 158.32 | 64.66 | 154.18 | 59.41 | 154.17 | 59.49 | -35.61 | 18760 | -38692 | 15252 | -10923* |
| SYOWA STATION | SYO | -69.01 | 39.59 | 159.01 | 159.96 | 79.39 | 156.12 | 70.88 | 156.11 | 70.83 | -46.41 | 18937 | -40597 | 13056 | -13716 |
| MOLODEZHNAYA | MOL | -67.67 | 45.85 | 157.67 | 160.04 | 87.20 | 156.56 | 77.12 | 156.50 | 77.20 | -50.63 | 19020 | -41650 | 12064 | -14703 |
| BYRD STATION | BYR | -80.02 | 240.48 | 170.02 | 160.62 | 336.71 | 157.94 | 353.68 | 157.92 | 353.58 | 70.88 | 16257 | -55648 | 5325 | 15360* |
| MAWSON | MAW | -67.61 | 62.88 | 157.61 | 163.30 | 105.07 | 160.24 | 89.38 | 160.23 | 89.30 | -63.09 | 18432 | -46784 | 8340 | -16437 |
| LITTLE AMERICA | LAA | -78.18 | 197.80 | 168.18 | 163.94 | 312.23 | 163.67 | 335.07 | 163.71 | 334.72 | 104.95 | 11881 | -61168 | -3065 | 11479* |
| LENINGRADSKAYA | LEN | -69.50 | 159.40 | 159.50 | 164.32 | 261.96 | 168.48 | 277.62 | 168.41 | 277.02 | 251.45 | 4729 | -66109 | -1504 | -4483* |
| CAPE HALLETT | HLL | -72.32 | 170.22 | 162.32 | 164.45 | 278.76 | 167.40 | 299.46 | 167.38 | 298.79 | 111.09 | 6994 | -64985 | -2517 | 6526* |
| DUMONT DURVILLE | DRV | -66.67 | 140.01 | 156.67 | 165.32 | 232.33 | 170.72 | 235.41 | 170.61 | 235.32 | 158.20 | 1177 | -70123 | -1093 | -437 |

(ALL VALUES AS OF 1980.5)

| | | GEOGRAPHIC COORDINATES | | | GEOMAGNETIC MODELS | | | | | | ANNUAL VALUES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DIPOLE | | GUSTAFFSSON | | TSYGANENKO | | OBSERVED | OR | IGRF | CALCULATED(*) | |
| OBSERVATORY | CODE | LAT | E LONG | CO-LAT | CO-LAT | E LONG | CO-LAT | E LONG | CO-LAT | E LONG | D | H | Z | X | Y |
| DAVIS | DVS | -68.58 | 77.97 | 158.58 | 166.86 | 122.53 | 164.50 | 99.16 | 164.49 | 99.04 | -75.97 | 16631 | -52607 | 4032 | -16135* |
| MIRNY | MIR | -66.55 | 93.02 | 156.55 | 167.01 | 149.64 | 167.19 | 122.03 | 167.19 | 121.63 | -83.93 | 14000 | -58727 | 1480 | -13922 |
| OASIS | OAS | -66.30 | 100.72 | 156.30 | 167.36 | 163.51 | 168.86 | 134.51 | 168.90 | 134.48 | -89.05 | 11985 | -60536 | 199 | -11983* |
| PLATEAU | PTU | -79.25 | 40.50 | 169.25 | 167.52 | 53.79 | 161.57 | 51.11 | 161.58 | 51.13 | -53.83 | 18106 | -47944 | 10686 | -14616* |
| WILKES | WIL | -66.25 | 110.58 | 156.25 | 167.56 | 181.85 | 170.77 | 154.72 | 170.84 | 155.07 | -95.76 | 9202 | -63259 | -924 | 9156* |
| CASEY | CSY | -66.28 | 110.53 | 156.28 | 167.59 | 181.76 | 170.79 | 154.48 | 170.86 | 154.86 | -95.82 | 9223 | -63241 | -935 | -9175* |
| CHARCOT | CTX | -69.37 | 139.03 | 159.37 | 167.92 | 235.89 | 173.45 | 242.60 | 173.40 | 242.69 | 165.00 | 3413 | -66275 | -3297 | 883* |
| SOUTH POLE | SPA | -90.00 | 000.00 | 180.00 | 168.67 | .04 | 163.99 | 19.51 | 163.80 | 18.14 | -27.58 | 16006 | -54650 | 14187 | -7411* |
| SCOTT BASE | SBA | -77.85 | 166.78 | 167.85 | 168.80 | 294.35 | 169.83 | 328.07 | 169.90 | 327.04 | 145.87 | 9174 | -63237 | -7594 | 5147* |
| MCMURDO | MCM | -77.85 | 166.70 | 167.85 | 168.81 | 294.30 | 169.84 | 328.08 | 169.92 | 327.04 | 146.00 | 9171 | -63239 | -7603 | 5128* |
| PIONERSKAYA | PIO | -69.73 | 95.50 | 159.73 | 170.32 | 149.87 | 169.82 | 113.25 | 169.86 | 112.87 | -91.84 | 13534 | -58492 | -435 | -13527* |
| VOSTOK | VOS | -78.45 | 106.87 | 168.45 | 179.41 | 111.68 | 173.22 | 52.90 | 173.33 | 53.65 | 118.73 | 13030 | -59361 | -6264 | -11424 |

TABLE 5

# O B S E R V E D  G E O M A G N E T I C  A N N U A L  M E A N S

| OBSERVATORY | CODE | EARLIEST COMPLETE YEAR | | | | | | LATEST COMPLETE YEAR | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ELE | YEAR | D | H | X | Y | Z | ELE | YEAR | D | H | X | Y | Z |
| ABINGER | ABN | DHZ | 1925 | -13.378 | 18597 | 18092 | -4303 | 42946 | DHZ | 1956 | -8.613 | 18750 | 18539 | -2808 | 43376 |
| ABISKO | ABK | DHZ | 1921 | -3.685 | 12354 | 12328 | -794 | 49698 | DHZ | 1983 | 3.070 | 11745 | 11728 | 629 | 51094 |
| ADDIS ABABA | AAE | DHZ | 1958 | -.437 | 36083 | 36082 | -275 | -634 | DHZ | 1982 | -.761 | 36006 | 36003 | -477 | 303 |
| AGINCOURT | AGN | | 1899 | -5.461 | 16491 | 16416 | -1570 | 59789 | DHZ | 1968 | -7.641 | 16287 | 16142 | -2166 | 55987 |
| ALERT | ALE | XYZ | 1962 | -79.205 | 3844 | 720 | -3776 | 55379 | XYZ | 1983 | -76.312 | 3627 | 860 | -3524 | 55817 |
| ALIBAG | ABG | DHI | 1846 | 0.221 | 36541 | 36541 | 141 | 12318 | DHZ | 1983 | -.698 | 38139 | 38136 | -464 | 17773 |
| ALMA ATA | AAA | DHZ | 1964 | 4.685 | 25455 | 25370 | 2079 | 48272 | DHZ | 1982 | 4.480 | 25341 | 25264 | 1980 | 47927 |
| ALMERIA | ALM | DHZ | 1955 | -7.822 | 25801 | 25561 | -3511 | 33618 | DHZ | 1982 | -4.646 | 26733 | 26645 | -2164 | 33353 |
| AMATSIA | AMT | DHZ | 1976 | 2.368 | 30450 | 30424 | 1258 | 31657 | DHZ | 1981 | 2.620 | 30414 | 30382 | 1391 | 31790 |
| AMBERLEY | AML | DHZ | 1929 | 17.752 | 22365 | 21300 | 6819 | -55252 | XYZ | 1977 | 21.865 | 21661 | 20103 | 8067 | -54508 |
| ANCHORAGE | AMU | DHZ | 1958 | 26.075 | 15241 | 13690 | 6699 | 54116 | DHZ | 1958 | 26.075 | 15241 | 13690 | 6699 | 54116 |
| ANNAMALAINAGAR | ANN | DHZ | 1958 | -2.742 | 40597 | 40551 | -1942 | 3853 | DHZ | 1982 | -2.599 | 40243 | 40202 | -1824 | 4407 |
| ANTIPOLO | ANO | DHZ | 1911 | .688 | 38072 | 38069 | 457 | 11140 | DHZ | 1938 | .603 | 38356 | 38354 | 404 | 10844 |
| APIA | API | DIH | 1905 | 9.625 | 35672 | 35170 | 5964 | -19912 | XYZ | 1983 | 12.483 | 34289 | 33479 | 7411 | -19976 |
| ARGENTINE ISLAND | AIA | DHZ | 1958 | 17.180 | 23542 | 22492 | 6954 | -36893 | DHZ | 1983 | 16.799 | 22184 | 21237 | 6411 | -34499 |
| ARTI | ARS | DHZ | 1973 | 11.745 | 16663 | 16314 | 3392 | 52587 | DHZ | 1983 | 11.675 | 16590 | 16247 | 3357 | 52726 |
| ASHKHABAD | ASH | DHZ | 1959 | 4.460 | 27618 | 27534 | 2148 | 40966 | DHZ | 1982 | 4.050 | 27512 | 27443 | 1943 | 40957 |
| ASO | ASO | DHZ | 1958 | -5.517 | 31760 | 31613 | -3053 | 34398 | DHZ | 1958 | -5.517 | 31760 | 31613 | -3053 | 34398 |
| ATHENS | ATH | DIH | 1900 | -5.705 | 26063 | 25934 | -2591 | 33514 | DIH | 1908 | -4.883 | 26197 | 26102 | -2230 | 33613 |
| AU TAU | AUT | DIH | 1928 | -.718 | 37478 | 37475 | -470 | 22207 | DIH | 1939 | -.633 | 37705 | 37703 | -417 | 22133 |
| AVERROES | AVE | DHF | 1967 | -8.262 | 27725 | 27437 | -3983 | 30235 | DHZ | 1976 | -7.230 | 28114 | 27890 | -3538 | 29969 |
| BAKER LAKE | BLC | XYZ | 1952 | 2.617 | 3655 | 3651 | 167 | 60224 | XYZ | 1983 | 1.838 | 4708 | 4706 | 151 | 60572 |
| BALDWIN | BAL | DHZ | 1901 | 8.365 | 21953 | 21719 | 3194 | 55944 | DHZ | 1908 | 8.550 | 21714 | 21473 | 3228 | 55972 |
| BANGUI | BNG | DHZ | 1955 | -5.028 | 32234 | 32110 | -2825 | -7933 | DHZ | 1983 | -2.733 | 32111 | 32074 | -1530 | -9173 |
| BARRACKPORE | BAC | DIH | 1904 | 1.373 | 37224 | 37213 | 892 | 21781 | DIH | 1914 | .537 | 37403 | 37401 | 350 | 22459 |
| BARROW | BRW | DIH | 1949 | 26.785 | 9387 | 8380 | 4230 | 56336 | DHZ | 1982 | 25.799 | 9734 | 8764 | 4236 | 56408 |
| BARTER ISLAND | BTI | DHZ | 1958 | 35.533 | 8825 | 7182 | 5129 | 57116 | DHZ | 1958 | 35.533 | 8825 | 7182 | 5129 | 57116 |
| BARTH | BAH | | 1898 | -10.375 | 18160 | 17863 | -3270 | 44540 | DIH | 1903 | -9.882 | 18261 | 17990 | -3134 | 44363 |
| BATAVIA | BTV | DHI | 1884 | 1.921 | 36845 | 36824 | 1236 | -19691 | DHZ | 1928 | .890 | 36834 | 36830 | 572 | -23226 |
| BEAR ISLAND | BJN | DHZ | 1951 | 1.505 | 9211 | 9208 | 242 | 51878 | DHZ | 1983 | 3.550 | 9200 | 9182 | 570 | 52905 |
| BEIJING | BJI | DHI | 1870 | -2.491 | 28433 | 28406 | -1236 | 43942 | DHZ | 1983 | -6.036 | 29518 | 29354 | -3103 | 46244 |
| BELOIT | BLT | DHZ | 1958 | 10.192 | 20822 | 20493 | 3684 | 53665 | DHZ | 1958 | 10.192 | 20822 | 20493 | 3684 | 53665 |
| BELSK | BEL | DHZ | 1960 | 1.867 | 18839 | 18829 | 614 | 44917 | DHZ | 1983 | 2.874 | 19033 | 19009 | 954 | 45499 |
| BIG DELTA | BDE | DHZ | 1958 | 29.847 | 12998 | 11274 | 6469 | 55372 | DHZ | 1958 | 29.847 | 12998 | 11274 | 6469 | 55372 |
| BINZA | BIN | DHZ | 1953 | -9.162 | 27238 | 26890 | -4337 | -18110 | DHZ | 1973 | -7.923 | 26730 | 26475 | -3685 | -19160 |
| BOROK | BOX | HZF | 1977 | | 15938 | | | 49124 | DHZ | 1983 | 9.247 | 15856 | 15650 | 2548 | 49244 |
| BOULDER | BOU | DHZ | 1964 | 13.713 | 21235 | 20630 | 5034 | 51925 | DHZ | 1982 | 12.054 | 21315 | 20845 | 4451 | 51048 |
| BOUZAREAH | BZR | | 1888 | -13.906 | 24997 | 24264 | -6008 | 34829 | | 1888 | -13.906 | 24997 | 24264 | -6008 | 34829 |
| BRORFELDE | BFE | DHZ | 1980 | -1.486 | 17204 | 17198 | -445 | 46040 | DHZ | 1980 | -1.499 | 17216 | 17210 | -450 | 46034 |
| BUDAKESZI | BUZ | DHZ | 1949 | -.570 | 20800 | 20799 | -207 | 41756 | DHZ | 1955 | .057 | 20840 | 20840 | 21 | 41986 |

| | | ----------EARLIEST COMPLETE YEAR---------- | | | | | | ----------LATEST COMPLETE YEAR---------- | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OBSERVATORY | CODE | ELE | YEAR | D | H | X | Y | Z | ELE | YEAR | D | H | X | Y | Z |
| BUDKOV | BDV | DHZ | 1967 | -1.003 | 20097 | 20094 | -352 | 42810 | DHZ | 1982 | .132 | 20305 | 20305 | 47 | 43196 |
| BURLINGTON | BRT | DHZ | 1958 | 12.300 | 21150 | 20665 | 4506 | 52304 | DHZ | 1958 | 12.300 | 21150 | 20665 | 4506 | 52304 |
| BYRD STATION | BYR | DHZ | 1958 | 69.230 | 15893 | 5636 | 14860 | -58669 | DHZ | 1967 | 70.483 | 16333 | 5457 | 15395 | -57504 |
| CAMBRIDGE BAY | CBB | DHZ | 1972 | 31.558 | 2936 | 2502 | 1537 | 60025 | XYZ | 1983 | 25.812 | 3112 | 2802 | 1355 | 59989 |
| CANARIAS | TEN | DHZ | 1959 | -12.770 | 28206 | 27508 | -6235 | 25392 | DHZ | 1980 | -10.219 | 29232 | 28768 | -5185 | 24047 |
| CANBERRA | CAN | DIF | 1979 | 12.080 | 23842 | 23314 | 4990 | -53777 | DHZ | 1983 | 12.270 | 23733 | 23191 | 5044 | -53755 |
| CAPE CHELYUSKIN | CCS | DHZ | 1935 | 25.535 | 4024 | 3631 | 1735 | 57649 | DHZ | 1982 | 15.334 | 3420 | 3298 | 904 | 59060 |
| CAPE GOOD HOPE | CGH | | 1842 | -29.211 | 20659 | 18032 | -10082 | -27642 | | 1845 | -29.123 | 20795 | 18166 | -10121 | -28675 |
| CAPE HALLETT | HLL | DHZ | 1958 | 103.083 | 6170 | -1397 | 6010 | -67720 | DHZ | 1962 | 104.111 | 6282 | -1532 | 6092 | -66861 |
| CAPE TOWN | CTO | DHZ | 1933 | -24.665 | 15050 | 13677 | -6281 | -29733 | DHZ | 1940 | -24.267 | 14433 | 13158 | -5932 | -29164 |
| CAPE WELLEN | CWE | DHZ | 1935 | 16.053 | 13672 | 13139 | 3781 | 53559 | DHZ | 1982 | 14.834 | 14175 | 13703 | 3629 | 53520 |
| CAPODIMONTE | CPD | DHI | 1884 | -10.523 | 23841 | 23440 | -4354 | 36560 | DIH | 1911 | -8.092 | 24171 | 23930 | -3402 | 36099 |
| CARROLLTON | CAX | DHZ | 1958 | 6.933 | 19980 | 19834 | 2412 | 53772 | DHZ | 1958 | 6.933 | 19980 | 19834 | 2412 | 53772 |
| CASEY | CSY | DHZ | 1978 | -89.072 | 9518 | 154 | -9517 | -64488 | DHZ | 1983 | -90.533 | 9585 | -88 | -9584 | -64326 |
| CASPER | CSR | DHZ | 1958 | 14.833 | 19620 | 18966 | 5023 | 54447 | DHZ | 1958 | 14.833 | 19620 | 18966 | 5023 | 54447 |
| CASTELLACCIO | CAO | DIH | 1933 | -7.177 | 22087 | 21914 | -2759 | 38616 | DIH | 1962 | -3.582 | 22455 | 22411 | -1403 | 39611 |
| CASTLE ROCK | CRC | DHZ | 1970 | 16.672 | 24326 | 23303 | 6979 | 44860 | DHZ | 1974 | 16.483 | 24298 | 23299 | 6894 | 44736 |
| CHA PA | CPA | DHZ | 1955 | -.805 | 39122 | 39118 | -550 | 22108 | DHZ | 1978 | -.913 | 38859 | 38854 | -619 | 22363 |
| CHAMBON-LA-FORET | CLF | DHZ | 1936 | -9.482 | 20011 | 19738 | -3297 | 41374 | DHZ | 1983 | -3.908 | 20864 | 20815 | -1421 | 42160 |
| CHANGCHUN | CNH | DHZ | 1980 | -8.918 | 26609 | 26287 | -4125 | 47480 | DHZ | 1983 | -8.996 | 26532 | 26206 | -4148 | 47539 |
| CHELTENHAM | CLM | DHZ | 1901 | -5.083 | 20195 | 20116 | -1789 | 56627 | DHZ | 1955 | -7.202 | 18519 | 18373 | -2322 | 53728 |
| CHICHIJIMA | CBI | DHZ | 1980 | -3.134 | 32712 | 32663 | -1788 | 24130 | DHZ | 1982 | -3.186 | 32690 | 32639 | -1816 | 24154 |
| CHRISTCHURCH | CHR | DHZ | 1902 | 16.252 | 22694 | 21787 | 6351 | -55277 | DHZ | 1930 | 17.805 | 22108 | 21049 | 6760 | -55570 |
| COIMBRA | COI | DHZ | 1867 | -20.796 | 21775 | 20356 | -7731 | 39609 | DHZ | 1983 | -7.086 | 24948 | 24757 | -3077 | 36362 |
| COLLEGE | CMO | DHZ | 1933 | 30.427 | 12572 | 10841 | 6367 | 55530 | DHZ | 1983 | 27.872 | 12914 | 11416 | 6037 | 55377 |
| COPENHAGEN | COP | DHI | 1892 | -10.890 | 17341 | 17029 | -3276 | 44781 | DHI | 1899 | -10.263 | 17490 | 17210 | -3116 | 44783 |
| CUAJIMALPA | CUA | DIH | 1904 | 7.382 | 33050 | 32776 | 4246 | 32960 | DIH | 1926 | 8.813 | 32274 | 31893 | 4945 | 33775 |
| DALLAS | DAL | DHZ | 1964 | 8.817 | 24340 | 24052 | 3731 | 47500 | DHZ | 1974 | 7.838 | 24386 | 24158 | 3326 | 46942 |
| DAR ES SALAAM | DM* | | 1897 | -8.505 | 29009 | 28690 | -4290 | -21745 | | 1897 | -8.505 | 29009 | 28690 | -4290 | -21745 |
| DAVIS | DVS | DHZ | 1981 | -76.300 | 16587 | 3928 | -16115 | -52576 | DHZ | 1983 | -76.423 | 16591 | 3895 | -16126 | -52464 |
| DE BILT | DBN | DHZ | 1899 | -13.911 | 18502 | 17959 | -4448 | 43701 | DHZ | 1938 | -8.035 | 18219 | 18040 | -2547 | 43262 |
| DEHRA DUN | DDI | DIH | 1903 | 2.692 | 33425 | 33388 | 1570 | 31437 | DHZ | 1942 | .647 | 33525 | 33523 | 378 | 34199 |
| DEKELEIA | DEK | DHZ | 1935 | -.958 | 25962 | 25958 | -434 | 34810 | DHZ | 1939 | -.573 | 26042 | 26041 | -261 | 35002 |
| DIXON ISLAND | DIK | DHZ | 1933 | 28.527 | 6971 | 6125 | 3329 | 57430 | DHZ | 1982 | 27.167 | 6350 | 5649 | 2899 | 58290 |
| DOMBAS | DOB | DHZ | 1916 | -11.217 | 14421 | 14146 | -2805 | 46196 | DHZ | 1982 | -3.091 | 14206 | 14185 | -765 | 48388 |
| DOURBES | DOU | DHZ | 1955 | -5.967 | 19289 | 19185 | -2005 | 42830 | DHZ | 1983 | -3.238 | 19874 | 19842 | -1121 | 43400 |
| DUBLIN | DL* | | 1842 | -27.263 | 16000 | 14223 | -7329 | 45689 | DHI | 1850 | -26.470 | 16160 | 14466 | -7203 | 45399 |
| DUMONT DURVILLE | DRV | XYZ | 1958 | -99.994 | 461 | -80 | -454 | -71446 | XYZ | 1983 | -20.492 | 1294 | -1212 | -453 | -69973 |
| EAST PORT | EP* | DHZ | 1860 | -17.951 | 15230 | 14489 | -4694 | 60570 | DHZ | 1864 | -18.061 | 15260 | 14508 | -4731 | 60180 |
| EASTER ISLAND | EIC | DIH | 1958 | 14.713 | 28808 | 27863 | 7317 | -21809 | DHZ | 1963 | 16.148 | 28152 | 27041 | 7830 | -21598 |

| OBSERVATORY | CODE | ----------EARLIEST COMPLETE YEAR---------- | | | | | | ----------LATEST COMPLETE YEAR---------- | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ELE | YEAR | D | H | X | Y | Z | ELE | YEAR | D | H | X | Y | Z |
| EBRO | EBR | DHZ | 1905 | -13.948 | 23230 | 22545 | -5599 | 37359 | DHZ | 1979 | -4.303 | 24708 | 24638 | -1854 | 36871 |
| EIGHTS | EGS | DHZ | 1964 | 32.693 | 21063 | 17726 | 11377 | -48352 | DHZ | 1964 | 32.693 | 21063 | 17726 | 11377 | -48352 |
| ELIZABETHVILLE | ELI | DHZ | 1935 | -9.417 | 23700 | 23381 | -3878 | -24780 | DHZ | 1957 | -8.548 | 22875 | 22621 | -3400 | -24950 |
| ESKDALEMUIR | ESK | DHZ | 1908 | -18.555 | 16821 | 15947 | -5353 | 45283 | DHZ | 1983 | -7.861 | 17301 | 17138 | -2365 | 45824 |
| ESPANOLA | EPN | DHZ | 1958 | 13.167 | 23700 | 23077 | 5398 | 48556 | DHZ | 1958 | 13.167 | 23700 | 23077 | 5398 | 48556 |
| EYREWELL | EYR | DHZ | 1978 | 22.073 | 21415 | 19845 | 8048 | -54783 | XYZ | 1983 | 22.423 | 21317 | 19705 | 8131 | -54626 |
| FALMOUTH | FAL | | 1892 | -19.218 | 18444 | 17416 | -6071 | 43702 | DHZ | 1912 | -17.403 | 18799 | 17938 | -5623 | 43118 |
| FANNING | FAN | DHZ | 1958 | 9.483 | 32924 | 32474 | 5424 | 6149 | DHZ | 1958 | 9.483 | 32924 | 32474 | 5424 | 6149 |
| FORT CHURCHILL | FCC | DHZ | 1958 | 2.833 | 6658 | 6650 | 329 | 60641 | XYZ | 1983 | 1.734 | 7636 | 7633 | 231 | 60578 |
| FORT YUKON | FYU | DHZ | 1958 | 31.767 | 11250 | 9565 | 5923 | 56131 | DHZ | 1958 | 31.767 | 11250 | 9565 | 5923 | 56131 |
| FREDERICKSBURG | FRD | DHZ | 1956 | -6.507 | 19000 | 18878 | -2153 | 53300 | DHZ | 1983 | -8.773 | 20521 | 20281 | -3129 | 51015 |
| FUQUENE | FUQ | DHZ | 1955 | 1.170 | 30458 | 30452 | 622 | 20394 | DHZ | 1982 | -2.594 | 28813 | 28783 | -1303 | 18642 |
| FURSTENFELDBRUCK | FUR | DHZ | 1939 | -4.895 | 20295 | 20221 | -1732 | 41356 | DHZ | 1983 | -.608 | 20812 | 20811 | -220 | 42562 |
| GIBILMANNA | GIB | DHZ | 1956 | -1.947 | 25855 | 25840 | -878 | 34952 | DHZ | 1956 | -1.947 | 25855 | 25840 | -878 | 34952 |
| GLENLEA | GLL | XYZ | 1982 | 7.976 | 14004 | 13869 | 1943 | 58837 | XYZ | 1982 | 8.038 | 14068 | 13930 | 1967 | 58844 |
| GNANGARA | GNA | DHZ | 1959 | -2.902 | 23954 | 23923 | -1213 | -53482 | DHZ | 1983 | -3.319 | 23294 | 23255 | -1348 | -53730 |
| GODHAVN | GDH | DHZ | 1927 | -58.473 | 8255 | 4317 | -7037 | 55764 | DHZ | 1983 | -47.358 | 8551 | 5793 | -6289 | 56327 |
| GONZALES VIDELA | GVD | DHZ | 1961 | 14.945 | 22914 | 22139 | 5909 | -36706 | DHZ | 1961 | 14.945 | 22914 | 22139 | 5909 | -36706 |
| GOTTINGEN | GT* | | 1867 | -14.861 | 18412 | 17796 | -4722 | 42938 | | 1867 | -14.861 | 18412 | 17796 | -4722 | 42938 |
| GREAT WHALE R. | GWC | DHZ | 1966 | -20.395 | 9719 | 9110 | -3387 | 59269 | XYZ | 1983 | -19.486 | 10816 | 10196 | -3608 | 58981 |
| GREENWICH | GRW | DHZ | 1846 | -22.826 | 17160 | 15816 | -6657 | 44630 | DHZ | 1925 | -13.165 | 18410 | 17926 | -4193 | 43080 |
| GROCKA | GCK | DHZ | 1958 | .542 | 22421 | 22420 | 212 | 40489 | DHZ | 1983 | 1.832 | 22674 | 22662 | 725 | 41102 |
| GUAM | GUA | DHZ | 1958 | 1.813 | 35524 | 35506 | 1124 | 8134 | DHZ | 1983 | 1.919 | 35829 | 35809 | 1200 | 7201 |
| GUANGZHOU | GZH | DHZ | 1958 | -.933 | 38226 | 38221 | -623 | 23399 | DHZ | 1981 | -1.564 | 38100 | 38086 | -1039 | 23749 |
| HALLEY BAY | HBA | DHZ | 1958 | -1.352 | 20276 | 20270 | -478 | -43727 | DHZ | 1975 | -1.058 | 20288 | 20285 | -375 | -42239 |
| HAMBURG | HM* | | 1885 | -12.603 | 17848 | 17418 | -3894 | 43717 | | 1896 | -11.611 | 18061 | 17691 | -3635 | 43921 |
| HARTEBEESTHOEK | HBK | DHF | 1973 | -16.777 | 13599 | 13020 | -3925 | 27495 | DHZ | 1983 | -10.118 | 13057 | 12854 | -2293 | 26692 |
| HARTLAND | HAD | DHZ | 1957 | -10.287 | 18627 | 18328 | -3326 | 43451 | DHZ | 1983 | -7.251 | 19356 | 19201 | -2442 | 43787 |
| HATIZYO | HTY | DHZ | 1980 | -7.685 | 31415 | 31133 | -4201 | 31770 | DHZ | 1983 | -7.074 | 31483 | 31243 | -3876 | 31918 |
| HAVANA | HVN | DHZ | 1968 | 1.758 | 27409 | 27396 | 841 | 38957 | DHZ | 1979 | .182 | 27076 | 27076 | 86 | 37688 |
| HEALY | HEA | DHZ | 1958 | 27.903 | 13518 | 11946 | 6326 | 54869 | DHZ | 1958 | 27.903 | 13518 | 11946 | 6326 | 54869 |
| HEARD ISLAND | HII | DHZ | 1952 | -49.968 | 18461 | 11874 | -14135 | -47099 | DHZ | 1953 | -50.152 | 18471 | 11835 | -14181 | -47187 |
| HEISS ISLAND | HIS | DHZ | 1959 | 24.365 | 5486 | 4997 | 2263 | 56866 | DHZ | 1982 | 23.084 | 5320 | 4894 | 2086 | 57530 |
| HEL | HLP | DHZ | 1934 | -2.592 | 17553 | 17535 | -794 | 44384 | DHZ | 1983 | 1.477 | 17614 | 17608 | 454 | 46200 |
| HELWAN | HLW | DHZ | 1903 | -3.373 | 30107 | 30055 | -1771 | 25732 | DHZ | 1959 | 1.327 | 30905 | 30897 | 715 | 28697 |
| HERMANUS | HER | DHZ | 1941 | -23.860 | 14252 | 13034 | -5765 | -29249 | DHZ | 1983 | -23.266 | 11188 | 10278 | -4418 | -25496 |
| HOLLANDIA | HNA | DHZ | 1958 | 3.960 | 37314 | 37225 | 2577 | -14315 | DHZ | 1961 | 3.980 | 37279 | 37189 | 2587 | -14478 |
| HONG KONG | HKC | DHI | 1884 | 0.783 | 36026 | 36023 | 492 | 22902 | DHZ | 1978 | -1.403 | 38078 | 38067 | -933 | 22395 |
| HONOLULU | HON | DHZ | 1902 | 9.318 | 29255 | 28869 | 4737 | 24759 | DHZ | 1983 | 11.394 | 27651 | 27106 | 5463 | 22251 |
| HUANCAYO | HUA | DHZ | 1922 | 8.125 | 29734 | 29436 | 4202 | 324 | DHZ | 1983 | 2.214 | 27041 | 27021 | 1045 | 930 |

| | | ----------EARLIEST COMPLETE YEAR---------- | | | | | | ----------LATEST COMPLETE YEAR---------- | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OBSERVATORY | CODE | ELE | YEAR | D | H | X | Y | Z | ELE | YEAR | D | H | X | Y | Z |
| HURBANOVO | HRB | DHZ | 1949 | -.847 | 20632 | 20630 | -305 | 41853 | DHZ | 1983 | 1.450 | 20964 | 20957 | 531 | 42857 |
| HYDERABAD | HYB | DHZ | 1965 | -1.712 | 40142 | 40124 | -1199 | 14996 | DHZ | 1982 | -1.634 | 39613 | 39597 | -1129 | 15341 |
| IBADAN | IBD | DHZ | 1956 | -8.687 | 32016 | 31649 | -4835 | -3306 | DHZ | 1962 | -8.118 | 32089 | 31767 | -4531 | -3580 |
| IRKUTSK | IRT | DHI | 1887 | 2.398 | 20101 | 20083 | 841 | 55423 | DHZ | 1983 | -2.353 | 19480 | 19464 | -799 | 56888 |
| ISTANBUL-KANDILLI | ISK | DHZ | 1947 | 1.998 | 24714 | 24699 | 862 | 38216 | DHZ | 1979 | 3.173 | 24982 | 24944 | 1383 | 39553 |
| JAIPUR | JAI | DHZ | 1979 | -.760 | 35837 | 35834 | -475 | 29661 | DHZ | 1983 | -.713 | 35576 | 35573 | -442 | 29708 |
| JARVIS ISLAND. | JRV | DHZ | 1958 | 9.270 | 34462 | 34012 | 5551 | 1345 | DHZ | 1958 | 9.270 | 34462 | 34012 | 5551 | 1345 |
| JASSY | JSS | DIH | 1931 | .393 | 21438 | 21437 | 147 | 40604 | DIH | 1963 | 2.800 | 21231 | 21206 | 1037 | 42729 |
| JULIANEHAAB | JUL | DHZ | 1933 | -43.347 | 11616 | 8447 | -7973 | 52989 | DHZ | 1933 | -43.347 | 11616 | 8447 | -7973 | 52989 |
| KAKIOKA | KAK | DHZ | 1913 | -5.169 | 29749 | 29628 | -2680 | 34851 | DHZ | 1983 | -6.661 | 30172 | 29968 | -3499 | 34720 |
| KANOYA | KNY | DHZ | 1958 | -4.993 | 32943 | 32818 | -2867 | 32187 | DHZ | 1983 | -5.534 | 32976 | 32822 | -3179 | 32052 |
| KANOZAN | KNZ | DHZ | 1961 | -6.071 | 30474 | 30303 | -3222 | 33891 | DHZ | 1983 | -6.316 | 30523 | 30338 | -3357 | 33744 |
| KARAGANDA | KGD | DHZ | 1965 | 8.797 | 20160 | 19923 | 3083 | 52539 | DHZ | 1983 | 7.325 | 20046 | 19882 | 2556 | 52269 |
| KARAVIA | KVA | DHZ | 1958 | -8.442 | 22935 | 22686 | -3367 | -24930 | DHZ | 1959 | -8.323 | 22875 | 22634 | -3311 | -24969 |
| KARSANI | KAS | DIH | 1905 | 2.405 | 25488 | 25466 | 1070 | 38309 | DHZ | 1934 | 4.433 | 24570 | 24497 | 1899 | 40390 |
| KAZAN | KZN | | 1892 | 7.513 | 18551 | 18391 | 2426 | 47343 | DHZ | 1983 | 10.562 | 16773 | 16489 | 3075 | 50445 |
| KELES | KEL | DHZ | 1936 | 5.392 | 25373 | 25261 | 2384 | 44280 | DHZ | 1963 | 4.798 | 25836 | 25745 | 2161 | 45673 |
| KEW | KEW | | 1858 | -21.901 | 17488 | 16226 | -6523 | 44117 | DHZ | 1924 | -13.752 | 18392 | 17865 | -4372 | 43205 |
| KEY WEST | QW* | DHI | 1860 | 4.776 | 31110 | 31002 | 2590 | 43810 | DHI | 1866 | 4.496 | 30980 | 30885 | 2430 | 43400 |
| KIEL | KE* | | 1885 | 12.901 | 17630 | 17185 | 3936 | 44498 | | 1885 | 12.901 | 17630 | 17185 | 3936 | 44498 |
| KIEV | KIV | DHZ | 1959 | 5.005 | 19286 | 19212 | 1683 | 45125 | DHZ | 1983 | 5.165 | 19452 | 19373 | 1751 | 45686 |
| KIRUNA | KIR | DHZ | 1965 | -6.143 | 11112 | 11048 | -1189 | 50401 | DHZ | 1981 | -5.610 | 11152 | 11099 | -1090 | 50946 |
| KODAIKANAL | KOD | DHZ | 1902 | -.300 | 37394 | 37393 | -196 | 1985 | DHZ | 1981 | -2.384 | 39220 | 39186 | -1631 | 2502 |
| KOROR | KOR | DHZ | 1958 | 2.088 | 37847 | 37822 | 1379 | -54 | DHZ | 1965 | 1.993 | 37937 | 37914 | 1320 | -381 |
| KOTZEBUE | KOT | DHZ | 1958 | 19.917 | 13000 | 12222 | 4428 | 54428 | DHZ | 1958 | 19.917 | 13000 | 12222 | 4428 | 54428 |
| KREMSMUNSTER | KRE | DIH | 1901 | -9.280 | 20708 | 20437 | -3339 | 40803 | DIH | 1904 | -9.040 | 20730 | 20473 | -3257 | 40752 |
| KSARA | KSA | DHZ | 1937 | 1.862 | 28586 | 28571 | 929 | 31979 | DHZ | 1970 | 2.647 | 29022 | 28991 | 1340 | 33674 |
| KUTCHINO | KTC | DHZ | 1926 | 6.432 | 17965 | 17852 | 2013 | 46442 | DHZ | 1938 | 6.483 | 17280 | 17169 | 1951 | 47260 |
| KUYPER | KUY | DHZ | 1929 | .900 | 36824 | 36819 | 578 | -23245 | DHZ | 1961 | 1.257 | 37389 | 37380 | 820 | -23679 |
| L AQUILA | AQU | DHZ | 1960 | -1.565 | 23542 | 23533 | -643 | 38457 | DHZ | 1983 | .182 | 23946 | 23946 | 76 | 38921 |
| LA PAZ | LPB | DHZ | 1974 | -.228 | 25593 | 25593 | -102 | -2126 | DHZ | 1976 | -.520 | 25479 | 25478 | -231 | -2019 |
| LA QUIACA | LQA | DHZ | 1920 | 6.055 | 26621 | 26473 | 2808 | -5979 | DHZ | 1983 | -2.403 | 23387 | 23366 | -980 | -6571 |
| LANZHOU | LZH | DHZ | 1959 | -1.702 | 32024 | 32010 | -951 | 42642 | DHZ | 1983 | -1.813 | 31464 | 31448 | -994 | 42537 |
| LAS ACACIAS | LAS | DHZ | 1964 | -1.583 | 21290 | 21282 | -588 | -13430 | DHZ | 1978 | -3.612 | 20310 | 20270 | -1279 | -13627 |
| LAUDER | LAU | DHZ | 1979 | 22.715 | 20213 | 18645 | 7805 | -56529 | DHZ | 1979 | 22.715 | 20213 | 18645 | 7805 | -56529 |
| LAZAREV | LZV | DHZ | 1960 | -27.327 | 19202 | 17059 | -8815 | -39609 | DHZ | 1960 | -27.327 | 19202 | 17059 | -8815 | -39609 |
| LEADVILLE | LDV | DHZ | 1958 | 13.883 | 21820 | 21183 | 5236 | 51033 | DHZ | 1958 | 13.883 | 21820 | 21183 | 5236 | 51033 |
| LEIRVOGUR | LRV | DHZ | 1958 | -23.745 | 11872 | 10867 | -4780 | 49322 | DHZ | 1983 | -19.758 | 12406 | 11676 | -4193 | 49993 |
| LENINGRAD | LNN | DHZ | 1947 | 5.967 | 15006 | 14925 | 1560 | 48141 | DHZ | 1982 | 7.272 | 15178 | 15056 | 1921 | 49095 |
| LERWICK | LER | DHZ | 1923 | -15.672 | 14655 | 14110 | -3959 | 46655 | DHZ | 1983 | -7.376 | 14941 | 14817 | -1917 | 47895 |

| OBSERVATORY | CODE | ----------EARLIEST COMPLETE YEAR---------- | | | | | | -------------LATEST COMPLETE YEAR----------- | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ELE | YEAR | D | H | X | Y | Z | ELE | YEAR | D | H | X | Y | Z |
| LHASA | LSA | DHZ | 1957 | -.383 | 35876 | 35875 | -240 | 33912 | DHZ | 1974 | -.290 | 35695 | 35695 | -181 | 33750 |
| LISBON | LIS | | 1858 | -21.670 | 22102 | 20540 | -8161 | 39311 | DIH | 1900 | -17.300 | 23516 | 22452 | -6993 | 37507 |
| LITTLE AMERICA V | LAA | DHZ | 1958 | 102.698 | 11250 | -2473 | 10975 | -63870 | DHZ | 1958 | 102.698 | 11250 | -2473 | 10975 | -63870 |
| LOGRONO | LGR | DHZ | 1958 | -7.937 | 23029 | 22808 | -3180 | 38181 | DHZ | 1976 | -6.008 | 23702 | 23572 | -2481 | 38187 |
| LOS ANGELES | LA* | DHI | 1883 | 14.513 | 27283 | 26412 | 6837 | 46339 | | 1889 | 14.376 | 27220 | 26367 | 6759 | 46186 |
| LOVO | LOV | DHZ | 1929 | -3.138 | 15582 | 15559 | -853 | 46340 | XYZ | 1983 | 1.813 | 15464 | 15456 | 489 | 48089 |
| LUANDA BELAS | LUA | DHZ | 1954 | -11.588 | 24494 | 23995 | -4920 | -21346 | DHZ | 1983 | -8.869 | 22986 | 22711 | -3543 | -23017 |
| LUBECK | LB* | | 1885 | -12.495 | 17792 | 17371 | -3849 | 44070 | | 1893 | -11.845 | 17904 | 17523 | -3675 | 44140 |
| LUKIAPANG | LKP | DIH | 1909 | -2.977 | 33187 | 33142 | -1723 | 33879 | DHZ | 1933 | -3.590 | 33329 | 33264 | -2087 | 33791 |
| LUNPING | LNP | DHZ | 1966 | -2.368 | 36624 | 36593 | -1513 | 25627 | DHZ | 1983 | -3.008 | 36568 | 36518 | -1918 | 25827 |
| LVOV | LVV | DHZ | 1952 | 2.125 | 19828 | 19814 | 735 | 43770 | DHZ | 1982 | 3.394 | 20050 | 20015 | 1187 | 44625 |
| LWIRO | LWI | DHZ | 1959 | -4.183 | 29884 | 29804 | -2180 | -16799 | DHZ | 1970 | -3.345 | 29632 | 29582 | -1729 | -17198 |
| M BOUR | MBO | DHZ | 1952 | -15.448 | 31404 | 30269 | -8365 | 10597 | DHZ | 1983 | -11.684 | 31943 | 31281 | -6468 | 6842 |
| MACQUARIE ISLAND | MCQ | DHZ | 1951 | 23.847 | 13383 | 12240 | 5411 | -64589 | DHZ | 1983 | 28.915 | 12652 | 11075 | 6117 | -63674 |
| MAGADAN | MGD | DHZ | 1960 | -10.378 | 16637 | 16365 | -2997 | 54289 | DHZ | 1983 | -13.316 | 17956 | 17473 | -4135 | 52571 |
| MAISACH | MAS | DHZ | 1927 | -6.875 | 20314 | 20168 | -2432 | 40817 | DHZ | 1932 | -5.988 | 20299 | 20188 | -2118 | 41005 |
| MAITUN | MAI | DHZ | 1941 | -8.688 | 26844 | 26536 | -4055 | 44591 | DHZ | 1945 | -8.788 | 26934 | 26618 | -4115 | 44714 |
| MAJURO | MJR | DHZ | 1965 | 9.387 | 33395 | 32948 | 5447 | 3307 | DHZ | 1965 | 9.387 | 33395 | 32948 | 5447 | 3307 |
| MANHAY | MAB | DHZ | 1933 | -8.545 | 19096 | 18884 | -2837 | 42433 | DHZ | 1983 | -2.844 | 19753 | 19729 | -979 | 43641 |
| MANILA | MAN | DHI | 1891 | 0.828 | 37611 | 37607 | 544 | 11694 | DIH | 1904 | .857 | 38215 | 38211 | 571 | 10961 |
| MAPUTO | LMM | DHZ | 1957 | -15.950 | 15281 | 14693 | -4199 | -28881 | DHZ | 1983 | -15.756 | 13913 | 13390 | -3777 | -26871 |
| MARION ISLAND | MRN | DHZ | 1974 | -35.737 | 14522 | 11788 | -8482 | -30615 | DHZ | 1977 | -36.172 | 14515 | 11717 | -8567 | -30319 |
| MARTIN DE VIVIES | AMS | DHZ | 1982 | -40.733 | 19146 | 14508 | -12492 | -47422 | XYZ | 1983 | -40.768 | 19144 | 14499 | -12501 | -47419 |
| MATOCHKIN SHAR | MSR | DHZ | 1924 | 20.625 | 9491 | 8883 | 3343 | 54326 | DHZ | 1944 | 23.272 | 8880 | 8158 | 3508 | 54500 |
| MAURITIUS | MRI | DHZ | 1892 | -10.170 | 23943 | 23567 | -4228 | -33921 | DHZ | 1965 | -17.052 | 22220 | 21243 | -6516 | -30495 |
| MAWSON | MAW | DHZ | 1956 | -58.887 | 18282 | 9447 | -15652 | -49006 | DHZ | 1983 | -63.443 | 18439 | 8244 | -16492 | -46503 |
| MEANOOK | MEA | DIH | 1917 | 27.768 | 12941 | 11451 | 6029 | 60450 | XYZ | 1983 | 21.665 | 13457 | 12506 | 4968 | 58396 |
| MELBOURNE | MEL | DHI | 1893 | 8.160 | 23432 | 23195 | 3326 | -55957 | DIH | 1920 | 7.927 | 22874 | 22655 | 3154 | -56384 |
| MEMAMBETSU | MMB | DHZ | 1952 | -8.168 | 26468 | 26199 | -3761 | 41707 | DHZ | 1983 | -8.374 | 26446 | 26164 | -3851 | 41415 |
| MIDWAY | MDY | DHZ | 1964 | 10.277 | 27813 | 27367 | 4962 | 26042 | DHZ | 1964 | 10.277 | 27813 | 27367 | 4962 | 26042 |
| MINSK | MNK | DHZ | 1961 | 4.948 | 17763 | 17697 | 1532 | 46363 | DHZ | 1982 | 5.429 | 17895 | 17815 | 1693 | 46883 |
| MIRNY | MIR | DHZ | 1957 | -78.150 | 13788 | 2831 | -13494 | -60436 | DHZ | 1982 | -84.249 | 14000 | 1403 | -13929 | -58550 |
| MISALLAT | MLT | DHZ | 1960 | 1.283 | 31067 | 31059 | 696 | 28372 | DHZ | 1980 | 1.980 | 31299 | 31280 | 1082 | 28657 |
| MIZUSAWA | MIZ | DHZ | 1969 | -7.285 | 28843 | 28610 | -3657 | 37274 | DHZ | 1983 | 7.475 | 28830 | 28585 | 3751 | 37304 |
| MOCA | MFP | DHZ | 1958 | -7.660 | 30724 | 30450 | -4095 | -8827 | DHZ | 1971 | -6.755 | 30698 | 30485 | -3611 | -9553 |
| MODIIM | MOD | DHZ | 1975 | 2.195 | 30076 | 30054 | 1152 | 31960 | DHZ | 1975 | 2.195 | 30076 | 30054 | 1152 | 31960 |
| MOLODEZHNAYA | MOL | DHZ | 1965 | -49.190 | 18977 | 12402 | -14363 | -43219 | DHZ | 1982 | -50.749 | 19005 | 12025 | -14716 | -41430 |
| MONTE CAPELLINO | MCP | DHZ | 1959 | -3.488 | 22247 | 22206 | -1353 | 39173 | DHZ | 1962 | -3.258 | 22320 | 22284 | -1269 | 39175 |
| MOSCOW | MOS | DHZ | 1946 | 7.083 | 17157 | 17026 | 2116 | 47707 | DHZ | 1982 | 7.844 | 17248 | 17087 | 2354 | 48673 |
| MOULD BAY | MBC | DHZ | 1963 | 65.613 | 2424 | 1001 | 2208 | 57940 | XYZ | 1983 | 59.999 | 2560 | 1281 | 2217 | 58219 |

| | | ----------EARLIEST COMPLETE YEAR---------- | | | | | | ----------LATEST COMPLETE YEAR---------- | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OBSERVATORY | CODE | ELE | YEAR | D | H | X | Y | Z | ELE | YEAR | D | H | X | Y | Z |
| MUNICH | MNH | | 1842 | -16.790 | 19282 | 18460 | -5570 | 41860 | DHZ | 1913 | -9.103 | 20623 | 20363 | -3263 | 40609 |
| MUNTINLUPA | MUT | DHZ | 1951 | .532 | 38871 | 38869 | 361 | 10019 | DHZ | 1982 | -.716 | 39244 | 39241 | -490 | 9729 |
| MURMANSK | MMK | DHZ | 1959 | 11.445 | 11549 | 11319 | 2292 | 51214 | DHZ | 1981 | 12.414 | 11798 | 11522 | 2536 | 51565 |
| NAGYCENK | NCK | DHZ | 1961 | -.393 | 20816 | 20815 | -143 | 42077 | DHZ | 1981 | .873 | 21119 | 21117 | 322 | 42500 |
| NAIROBI | NAI | DHZ | 1964 | -2.360 | 30918 | 30892 | -1273 | -15669 | DHZ | 1978 | -1.160 | 30487 | 30481 | -617 | -15477 |
| NANTES | NTS | DHZ | 1923 | -13.391 | 20212 | 19662 | -4681 | 41009 | DHZ | 1958 | -8.037 | 20678 | 20475 | -2891 | 41564 |
| NARSSARSSUAQ | NAQ | DHZ | 1969 | -36.610 | 11661 | 9360 | -6954 | 53686 | DHZ | 1983 | -33.306 | 12152 | 10156 | -6672 | 53764 |
| NEW YEARS ISLAND | NYI | DIH | 1902 | 15.955 | 27306 | 26254 | 7506 | -32808 | DIH | 1916 | 15.040 | 26771 | 25854 | 6947 | -31519 |
| NEWPORT | NEW | DHZ | 1967 | 21.447 | 18034 | 16785 | 6594 | 54856 | DHZ | 1981 | 20.108 | 18187 | 17079 | 6253 | 54482 |
| NICE | NCE | DHI | 1885 | -13.316 | 22035 | 21443 | -5075 | 39298 | DHI | 1891 | -12.715 | 22143 | 21600 | -4874 | 39108 |
| NIEMEGK | NGK | DHZ | 1931 | -5.603 | 18526 | 18437 | -1809 | 42999 | XYZ | 1983 | -.249 | 18809 | 18809 | -82 | 44639 |
| NITSANIM | NCK | DHZ | 1967 | 2.368 | 30131 | 30105 | 1245 | 31600 | DHZ | 1967 | 2.368 | 30131 | 30105 | 1245 | 31600 |
| NIZHNEDEVITSK | NNV | DHZ | 1935 | 5.560 | 18588 | 18501 | 1801 | 45060 | DHZ | 1936 | 5.662 | 18556 | 18465 | 1831 | 45104 |
| NORTHWAY | NRW | DHZ | 1958 | 31.083 | 12900 | 11048 | 6660 | 55876 | DHZ | 1958 | 31.083 | 12900 | 11048 | 6660 | 55876 |
| NORWAY STATION | NWS | DHZ | 1960 | -18.400 | 19537 | 18538 | -6166 | -38803 | DHZ | 1961 | -18.383 | 19524 | 18528 | -6156 | -38665 |
| NOVOKAZALINSK | NKK | DHZ | 1974 | 6.438 | 22709 | 22566 | 2546 | 47466 | DHZ | 1983 | 6.464 | 22607 | 22463 | 2545 | 47512 |
| NOVOLAZAREVSKAYA | NVL | DHZ | 1961 | -27.287 | 18881 | 16780 | -8656 | -39831 | DHZ | 1982 | -26.999 | 18620 | 16591 | -8452 | -37260 |
| NOVOSIBIRSK | NVS | DHZ | 1967 | 9.033 | 17156 | 16943 | 2694 | 56645 | DHZ | 1983 | 8.445 | 17202 | 17015 | 2526 | 56448 |
| NURMIJARVI | NUR | DHZ | 1953 | 3.345 | 14994 | 14968 | 875 | 48230 | XYZ | 1983 | 4.470 | 15154 | 15108 | 1181 | 49098 |
| O GYALLA | OGY | DIH | 1900 | -7.480 | 21153 | 20973 | -2754 | 40733 | DIH | 1914 | -5.983 | 21024 | 20909 | -2191 | 40531 |
| OASIS | OAS | DHZ | 1957 | -84.537 | 12020 | 1144 | -11965 | -62654 | DHZ | 1958 | -84.993 | 12003 | 1048 | -11957 | -62653 |
| ODESSA | ODE | | 1896 | -4.826 | 22038 | 21960 | -1854 | 42452 | DHZ | 1983 | 2.439 | 21392 | 21373 | 910 | 43607 |
| ORCADAS DEL SUR | ORC | DHZ | 1905 | 5.277 | 25667 | 25558 | 2360 | -36006 | DHZ | 1962 | 1.972 | 21759 | 21746 | 749 | -30083 |
| OSLO | OSL | DHI | 1843 | -18.578 | 15502 | 14694 | -4939 | 46929 | DIH | 1907 | -11.017 | 16388 | 16086 | -3132 | 47034 |
| OTTAWA | OTT | DHZ | 1969 | -13.685 | 15760 | 15313 | -3729 | 56467 | XYZ | 1983 | -14.198 | 16813 | 16299 | -4124 | 55304 |
| P. TUNGUSKA | POD | DHZ | 1969 | 10.598 | 12312 | 12102 | 2264 | 59244 | DHZ | 1983 | 9.734 | 12343 | 12165 | 2087 | 59209 |
| PAMATAI | PPT | DHZ | 1969 | 10.302 | 31613 | 31103 | 5654 | -18713 | DHZ | 1983 | 11.237 | 31262 | 30663 | 6092 | -18905 |
| PANAGYURISHTE | PAG | DHZ | 1948 | .263 | 23436 | 23436 | 108 | 38794 | DHZ | 1982 | 2.020 | 23695 | 23680 | 835 | 39839 |
| PARAMARIBO | PAB | DHZ | 1958 | -11.803 | 29119 | 28503 | -5956 | 18427 | DHZ | 1974 | -13.605 | 28612 | 27809 | -6730 | 16067 |
| PARC ST. MAUR | PSM | | 1883 | -16.340 | 19351 | 18569 | -5444 | 42112 | DHZ | 1900 | -14.757 | 19558 | 18913 | -4982 | 41736 |
| PATRICK | PAT | DHZ | 1955 | .480 | 24920 | 24919 | 209 | 45533 | DHZ | 1955 | .480 | 24920 | 24919 | 209 | 45533 |
| PENDELI | PEG | DHZ | 1959 | .887 | 26177 | 26174 | 405 | 35976 | DHZ | 1960 | .945 | 26183 | 26179 | 432 | 36021 |
| PERPIGNAN | PER | | 1890 | -14.446 | 22143 | 21443 | -5524 | 38781 | DHZ | 1900 | -13.622 | 22441 | 21810 | -5285 | 38828 |
| PETROPAVLOVSK | PET | DHZ | 1969 | -5.273 | 22105 | 22011 | -2031 | 45965 | DHZ | 1982 | -5.374 | 21981 | 21884 | -2058 | 45857 |
| PILAR | PIL | DHZ | 1905 | 9.857 | 25892 | 25510 | 4432 | -12655 | DHZ | 1983 | -.191 | 21189 | 21189 | -70 | -12072 |
| PIONERSKAYA | PIO | DHZ | 1957 | -85.713 | 13179 | 985 | -13142 | -60277 | DHZ | 1958 | -86.235 | 13162 | 864 | -13134 | -60242 |
| PLAISANCE | PLS | DHZ | 1966 | -16.600 | 21829 | 20919 | -6236 | -29396 | DHZ | 1976 | -16.917 | 21723 | 20783 | -6321 | -29034 |
| PLATEAU | PTU | DHZ | 1966 | -53.337 | 18215 | 10876 | -14611 | -49683 | DHZ | 1968 | -53.438 | 18246 | 10869 | -14655 | -49574 |
| POLA | POL | DHI | 1883 | -10.793 | 21854 | 21467 | -4092 | 39146 | DHZ | 1922 | -6.422 | 22049 | 21911 | -2466 | 38690 |
| PORT ALFRED | CZT | DHZ | 1974 | -41.507 | 16291 | 12200 | -10796 | -33810 | DHZ | 1982 | -43.356 | 16272 | 11831 | -11170 | -33470 |

| | | ----------EARLIEST COMPLETE YEAR---------- | | | | | | ----------LATEST COMPLETE YEAR---------- | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OBSERVATORY | CODE | ELE | YEAR | D | H | X | Y | Z | ELE | YEAR | D | H | X | Y | Z |
| PORT MORESBY | PMG | DHZ | 1959 | 6.022 | 36483 | 36282 | 3827 | -22789 | DHZ | 1983 | 6.544 | 35935 | 35701 | 4095 | -23713 |
| PORT-AUX-FRANCAIS | KGL | DHZ | 1958 | -47.823 | 18736 | 12580 | -13885 | -44064 | DHZ | 1982 | -51.674 | 18412 | 11418 | -14443 | -43766 |
| POTSDAM | POT | DHZ | 1890 | -10.955 | 18731 | 18390 | -3559 | 43044 | DHZ | 1928 | -5.970 | 18467 | 18367 | -1921 | 43010 |
| PRICE | PCU | DHZ | 1958 | 15.917 | 22290 | 21435 | 6113 | 50379 | DHZ | 1958 | 15.917 | 22290 | 21435 | 6113 | 50379 |
| PRUHONICE | PRU | | 1870 | -12.015 | 19358 | 18934 | -4030 | 41955 | DHZ | 1972 | -.518 | 19749 | 19748 | -179 | 43406 |
| QUETTA | QUE | DHZ | 1954 | 1.520 | 32915 | 32903 | 873 | 33655 | DHZ | 1983 | 1.312 | 32656 | 32647 | 748 | 33603 |
| REGENSBERG | REG | DHZ | 1957 | -3.792 | 20719 | 20674 | -1370 | 41411 | DHZ | 1975 | -2.513 | 21134 | 21114 | -927 | 41811 |
| RESOLUTE BAY | RES | DHZ | 1954 | -95.340 | 924 | -86 | -920 | 57981 | XYZ | 1983 | -56.177 | 910 | 506 | -756 | 58485 |
| RIO DE JANEIRO | RDJ | DHI | 1899 | -7.790 | 25030 | 24800 | -3393 | -5900 | DHZ | 1906 | -8.922 | 24772 | 24472 | -3842 | -6155 |
| ROBURENT | ROB | DHZ | 1965 | -3.120 | 22603 | 22570 | -1230 | 39668 | DHZ | 1973 | -2.495 | 22828 | 22806 | -994 | 39781 |
| ROI BAUDOUIN | RBD | DHZ | 1965 | -35.427 | 18929 | 15424 | -10971 | -40753 | DHZ | 1966 | -35.482 | 18930 | 15415 | -10987 | -40631 |
| RUDE SKOV | RSV | DHZ | 1907 | -9.805 | 17426 | 17171 | -2968 | 44730 | DHZ | 1981 | -.743 | 17072 | 17071 | -220 | 46327 |
| SABHAWALA | SAB | DHZ | 1964 | .348 | 34241 | 34240 | 208 | 34698 | DHZ | 1981 | .392 | 33804 | 33803 | 231 | 34466 |
| SAN FERNANDO | SFS | DHI | 1891 | -16.653 | 24329 | 23309 | -6972 | 35905 | DHZ | 1977 | -6.622 | 26812 | 26633 | -3092 | 32951 |
| SAN JOSE | SJL | DHZ | 1965 | 2.178 | 27404 | 27384 | 1042 | 39206 | DHZ | 1973 | 1.028 | 27346 | 27342 | 491 | 38334 |
| SAN JUAN | SJG | DHZ | 1926 | -4.352 | 27742 | 27662 | -2105 | 35734 | DHZ | 1983 | -10.051 | 27245 | 26827 | -4754 | 30597 |
| SANAE | SNA | DHZ | 1963 | -18.657 | 19464 | 18441 | -6226 | -38378 | DHZ | 1983 | -17.799 | 18916 | 18011 | -5781 | -35920 |
| SANTIAGO | SNT | | 1851 | 15.840 | 29858 | 28724 | 8150 | -21359 | | 1852 | 16.245 | 29770 | 28581 | 8328 | -21312 |
| SAO MIGUEL | SMG | DIH | 1911 | -19.948 | 22987 | 21608 | -7843 | 41467 | DHZ | 1977 | -13.043 | 25590 | 24929 | -5775 | 37981 |
| SCOTT BASE | SBA | DHZ | 1958 | 156.565 | 9777 | -8971 | 3888 | -69454 | DHZ | 1979 | 156.462 | 10649 | -9763 | 4253 | -67511 |
| SEDDIN | SED | DHZ | 1908 | -9.320 | 18890 | 18641 | -3059 | 42974 | DHZ | 1931 | -5.482 | 18450 | 18366 | -1762 | 43106 |
| SHESHAN | SSH | DHZ | 1934 | -3.412 | 33247 | 33188 | -1978 | 33855 | DHZ | 1983 | -4.509 | 33678 | 33574 | -2647 | 34398 |
| SHILLONG | SHL | DHZ | 1979 | -.738 | 37507 | 37504 | -483 | 27372 | DHZ | 1981 | -.763 | 37409 | 37406 | -498 | 27479 |
| SIMFEROPOL | SIM | DHZ | 1959 | 4.372 | 22498 | 22433 | 1715 | 41843 | DHZ | 1959 | 4.372 | 22498 | 22433 | 1715 | 41843 |
| SIMOSATO | SSO | DHZ | 1955 | -5.758 | 31500 | 31341 | -3160 | 33420 | DHZ | 1977 | -6.008 | 31546 | 31373 | -3302 | 33071 |
| SINGAPORE | SG* | | 1841 | 1.600 | 36707 | 36693 | 1025 | -8287 | | 1847 | 1.608 | 37351 | 37336 | 1048 | -8559 |
| SITKA | SIT | DHZ | 1902 | 29.852 | 15441 | 13392 | 7686 | 56833 | DHZ | 1983 | 27.179 | 15838 | 14089 | 7234 | 54766 |
| SLUTZK | SLU | | 1878 | -1.128 | 16364 | 16361 | -322 | 46686 | DHZ | 1944 | 5.650 | 15150 | 15076 | 1492 | 47807 |
| SODANKYLA | SOD | DHZ | 1914 | .305 | 12905 | 12905 | 69 | 49260 | DHZ | 1983 | 6.854 | 11866 | 11781 | 1416 | 50712 |
| SOUTH GEORGIA | SGE | DHZ | 1975 | -8.683 | 18666 | 18452 | -2817 | -24425 | DHZ | 1981 | -8.721 | 18129 | 17919 | -2748 | -24226 |
| SOUTH POLE | SPA | DHZ | 1959 | -27.398 | 15810 | 14037 | -7275 | -57112 | DHZ | 1971 | -27.662 | 16006 | 14177 | -7431 | -55793 |
| SREDNIKAN | SRE | DHZ | 1936 | -8.803 | 16142 | 15952 | -2470 | 53995 | DHZ | 1966 | -10.317 | 16763 | 16492 | -3002 | 54054 |
| SSAGASTYR | GY* | | 1883 | 4.805 | 7168 | 7143 | 600 | 59655 | | 1883 | 4.805 | 7168 | 7143 | 600 | 59655 |
| ST JOHNS | STJ | DHZ | 1969 | -26.835 | 17503 | 15618 | -7901 | 50777 | XYZ | 1983 | -24.474 | 18523 | 16859 | -7674 | 49879 |
| ST PETERSBURG | LN* | | 1869 | -2.350 | 16275 | 16262 | -667 | 46604 | DHI | 1877 | -1.318 | 16396 | 16392 | -377 | 47026 |
| STARA DALA | STA | DHZ | 1941 | -1.785 | 20668 | 20658 | -644 | 41550 | DHZ | 1944 | -1.438 | 20674 | 20667 | -519 | 41693 |
| STONYHURST | STO | DHI | 1876 | -20.878 | 16840 | 15734 | -6002 | 44676 | DHZ | 1967 | -8.951 | 17646 | 17431 | -2746 | 44796 |
| SURLARI | SUA | DHZ | 1950 | 1.653 | 22474 | 22465 | 648 | 40949 | DHZ | 1980 | 2.818 | 22725 | 22698 | 1117 | 41607 |
| SVERDLOVSK | SVD | DHZ | 1887 | 9.251 | 17815 | 17583 | 2864 | 50537 | DHZ | 1976 | 12.807 | 16143 | 15741 | 3578 | 52282 |
| SWIDER | SWI | DHZ | 1921 | -3.505 | 18712 | 18677 | -1144 | 43185 | DHZ | 1969 | 1.542 | 18365 | 18358 | 494 | 45216 |

| | | ----------EARLIEST COMPLETE YEAR---------- | | | | | | ----------LATEST COMPLETE YEAR---------- | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OBSERVATORY | CODE | ELE | YEAR | D | H | X | Y | Z | ELE | YEAR | D | H | X | Y | Z |
| SYOWA STATION | SYO | DHZ | 1958 | -44.167 | 18911 | 13565 | -13176 | -43354 | DHZ | 1982 | -46.459 | 19000 | 13088 | -13772 | -40381 |
| TACUBAYA | TAC | DHZ | 1895 | 7.760 | 33428 | 33122 | 4514 | 32701 | DIH | 1926 | 9.252 | 32141 | 31723 | 5167 | 34529 |
| TAMANRASSET | TAM | DIH | 1935 | -7.860 | 31818 | 31519 | -4351 | 17799 | DHZ | 1981 | 3.117 | 32912 | 32863 | 1790 | 17249 |
| TANANARIVE | TAN | DHI | 1890 | -13.123 | 23030 | 22429 | -5229 | -32546 | DHZ | 1983 | -13.118 | 19964 | 19443 | -4530 | -27050 |
| TANGERANG | TNG | DHZ | 1964 | 1.025 | 37171 | 37165 | 665 | -23983 | DHZ | 1983 | .162 | 37417 | 37417 | 106 | -23991 |
| TASHKENT | TKT | | 1883 | 5.623 | 27109 | 26978 | 2656 | 41590 | DHZ | 1982 | 4.610 | 25732 | 25649 | 2068 | 45366 |
| TATUOCA | TTB | DHZ | 1958 | -15.283 | 28648 | 27635 | -7551 | 8940 | DIH | 1980 | -17.857 | 27758 | 26421 | -8512 | 5656 |
| TBILISI | TFS | DHI | 1880 | 0.808 | 25748 | 25745 | 363 | 37468 | DHZ | 1982 | 5.082 | 24105 | 24010 | 2135 | 42146 |
| TEHRAN | TEH | DHZ | 1960 | 3.857 | 28343 | 28279 | 1906 | 37688 | DHZ | 1973 | 3.473 | 28329 | 28277 | 1716 | 37611 |
| TEOLOYUCAN | TEO | DHZ | 1914 | 8.827 | 32521 | 32136 | 4990 | 33596 | DHZ | 1975 | 7.930 | 29631 | 29348 | 4088 | 31846 |
| THULE | THL | DHZ | 1947 | -77.808 | 4436 | 937 | -4336 | 55761 | DHZ | 1980 | -74.467 | 3921 | 1050 | -3778 | 56688 |
| TIHANY | THY | DHZ | 1955 | -.385 | 21166 | 21165 | -142 | 41530 | DHF | 1983 | 1.400 | 21460 | 21454 | 525 | 42258 |
| TIKHAYA BAY | TKH | DHZ | 1933 | 21.182 | 6598 | 6152 | 2384 | 54611 | DHZ | 1957 | 26.243 | 6130 | 5498 | 2711 | 55066 |
| TIXIE BAY | TIK | DHZ | 1944 | -11.948 | 7356 | 7197 | -1523 | 59234 | DH | 1982 | -16.749 | 7860 | 7526 | -2265 | |
| TOKYO | TOK | DHZ | 1887 | -4.118 | 29179 | 29104 | -2096 | 34342 | DIH | 1912 | -5.057 | 29996 | 29879 | -2644 | 34379 |
| TOLEDO | SPT | DHZ | 1982 | -5.498 | 25275 | 25159 | -2421 | 35732 | DHZ | 1981 | -5.608 | 25147 | 25027 | -2456 | 36034 |
| TOMSK | TMK | DHZ | 1958 | 10.023 | 15783 | 15542 | 2747 | 57169 | DHZ | 1969 | 9.218 | 15945 | 15739 | 2554 | 57226 |
| TOOLANGI | TOO | DIH | 1919 | 8.130 | 23071 | 22839 | 3263 | -55975 | DHZ | 1978 | 10.988 | 22099 | 21694 | 4212 | -56304 |
| TORONTO | AG* | DHZ | 1842 | -1.318 | 16300 | 16296 | -375 | 62014 | DHZ | 1898 | -4.916 | 16598 | 16537 | -1423 | 60327 |
| TOULOUSE | TLS | | 1894 | -14.791 | 21834 | 21110 | -5574 | 39738 | DIH | 1905 | -13.995 | 22013 | 21360 | -5324 | 39498 |
| TOUNGOO | TGO | DIH | 1905 | .807 | 38675 | 38671 | 544 | 16394 | DIH | 1932 | -.692 | 39306 | 39303 | -474 | 16727 |
| TOYOHARA | TOH | DHZ | 1933 | -8.947 | 25035 | 24730 | -3893 | 44591 | DHZ | 1944 | -9.492 | 25191 | 24846 | -4154 | 44764 |
| TRELEW | TRW | DHZ | 1958 | 9.192 | 22821 | 22528 | 3645 | -18827 | DHZ | 1978 | 7.250 | 21229 | 21059 | 2679 | -18104 |
| TRIVANDRUM | TRD | DHZ | 1958 | -2.905 | 40062 | 40011 | -2030 | -423 | DHZ | 1983 | -2.738 | 39847 | 39802 | -1902 | 9 |
| TROMSO | TRO | DHZ | 1931 | -3.993 | 11549 | 11521 | -804 | 50198 | DHZ | 1983 | .835 | 11323 | 11322 | 165 | 51587 |
| TSINGTAO | TSI | DIH | 1908 | -3.727 | 30766 | 30701 | -2000 | 39890 | DHZ | 1936 | -4.627 | 30935 | 30834 | -2495 | 39741 |
| TSUMEB | TSU | DHZ | 1965 | -15.967 | 17340 | 16671 | -4769 | -27004 | DHZ | 1983 | -13.236 | 15623 | 15208 | -3576 | -26940 |
| TUCSON | TUC | DHZ | 1910 | 13.430 | 27379 | 26630 | 6359 | 46160 | DHZ | 1983 | 11.970 | 25545 | 24990 | 5298 | 42807 |
| TUNTUNGAN | | DHZ | 1982 | -.599 | 40309 | 40307 | -421 | -9556 | DHZ | 1982 | -.599 | 40309 | 40307 | -421 | -9556 |
| UCCLE | UCC | | 1893 | -14.811 | 18774 | 18151 | -4800 | 43123 | DIH | 1917 | -12.320 | 18964 | 18527 | -4046 | 42684 |
| UJJAIN | UJJ | DHZ | 1979 | -.520 | 37147 | 37145 | -337 | 24365 | DHZ | 1981 | -.475 | 36969 | 36968 | -306 | 24441 |
| ULAN BATOR | UBA | DHZ | 1966 | -3.687 | 23116 | 23068 | -1486 | 54363 | DHZ | 1977 | -3.648 | 23088 | 23041 | -1469 | 53920 |
| URUMQI | WMQ | DHZ | 1980 | 2.612 | 25389 | 25362 | 1157 | 50091 | DHZ | 1983 | 2.635 | 25276 | 25249 | 1162 | 50082 |
| UTRECHT | WI* | DHI | 1891 | -14.618 | 18354 | 17760 | -4632 | 43769 | DHI | 1898 | -13.985 | 18487 | 17939 | -4468 | 43623 |
| VAL JOYEUX | VLJ | DHZ | 1901 | -15.200 | 19680 | 18992 | -5160 | 42167 | DHZ | 1936 | -9.945 | 19647 | 19352 | -3393 | 41668 |
| VALENTIA | VAL | DHI | 1899 | -21.583 | 17739 | 16495 | -6525 | 45149 | DHZ | 1983 | -10.348 | 19022 | 18713 | -3416 | 44454 |
| VASSOURAS | VSS | DHZ | 1919 | -11.180 | 24419 | 23956 | -4735 | -6669 | DHZ | 1983 | -19.583 | 20886 | 19678 | -6999 | -11491 |
| VICTORIA | VIC | DHZ | 1956 | 23.003 | 18689 | 17203 | 7303 | 53427 | XYZ | 1983 | 21.223 | 19006 | 17717 | 6880 | 52773 |
| VIEQUES | VQS | DIH | 1904 | -1.518 | 29264 | 29254 | -775 | 33962 | DHZ | 1923 | -4.138 | 27629 | 27557 | -1994 | 34900 |
| VLADIVOSTOK | VLA | DHZ | 1952 | -8.997 | 26885 | 26554 | -4204 | 45510 | DHZ | 1983 | -9.756 | 26906 | 26517 | -4558 | 45024 |

| | | ----------EARLIEST COMPLETE YEAR---------- | | | | | | ----------LATEST COMPLETE YEAR---------- | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OBSERVATORY | CODE | ELE | YEAR | D | H | X | Y | Z | ELE | YEAR | D | H | X | Y | Z |
| VOSTOK | VOS | DHZ | 1958 | 116.600 | 12281 | -5499 | -10981 | -61643 | DHZ | 1981 | 118.794 | 13067 | -6293 | -11450 | -59269 |
| VYKHODNOY | VYK | DHZ | 1954 | 25.393 | 8648 | 7812 | 3709 | 54817 | DHZ | 1955 | 25.457 | 8622 | 7785 | 3706 | 54859 |
| WARSAW | SW* | | 1893 | -6.815 | 19005 | 18871 | -2255 | 43325 | | 1893 | -6.815 | 19005 | 18871 | -2255 | 43325 |
| WASHINGTON 1 | CH* | DHZ | 1867 | -2.801 | 19900 | 19876 | -973 | 58160 | DHZ | 1868 | -2.853 | 19960 | 19935 | -994 | 58150 |
| WASHINGTON 2 | FR* | DHZ | 1889 | -4.025 | 19869 | 19820 | -1395 | 58033 | DHZ | 1892 | -4.236 | 19849 | 19794 | -1466 | 57858 |
| WASHINGTON NEW | FR* | DHZ | 1894 | -3.665 | 19979 | 19938 | -1277 | 56644 | DHZ | 1894 | -3.665 | 19979 | 19938 | -1277 | 56644 |
| WATHEROO | WAT | DHZ | 1919 | -4.380 | 24925 | 24852 | -1903 | -50780 | DHZ | 1958 | -2.683 | 24858 | 24831 | -1163 | -52220 |
| WHITESHELL | WHS | XYZ | 1977 | 5.239 | 13985 | 13927 | 1277 | 58784 | XYZ | 1979 | 4.874 | 14054 | 14003 | 1194 | 58667 |
| WIEN-KOBENZL | WIK | | 1892 | -8.926 | 20657 | 20407 | -3205 | 40986 | DHZ | 1983 | .960 | 20787 | 20784 | 348 | 42986 |
| WILHELMSHAVEN | WLH | DHI | 1884 | -13.923 | 17797 | 17274 | -4282 | 43998 | DHZ | 1911 | -11.470 | 18110 | 17748 | -3601 | 43747 |
| WILKES | WIL | DHZ | 1958 | -82.990 | 9314 | 1137 | -9244 | -65010 | DHZ | 1966 | -86.547 | 9238 | 556 | -9221 | -64641 |
| WINGST | WNG | DHZ | 1939 | -5.985 | 17636 | 17540 | -1839 | 44092 | DHZ | 1983 | -1.614 | 18093 | 18086 | -509 | 45269 |
| WITTEVEEN | WIT | DHZ | 1938 | -7.460 | 17952 | 17800 | -2331 | 43571 | DHZ | 1982 | -2.788 | 18528 | 18506 | -900 | 44707 |
| WUHAN | WHN | DHZ | 1980 | -3.133 | 34738 | 34686 | -1899 | 34370 | DHZ | 1983 | -3.246 | 34659 | 34603 | -1962 | 34502 |
| YAKUTSK | YAK | DHZ | 1937 | -16.818 | 14464 | 13845 | -4185 | 57960 | DHZ | 1982 | -19.481 | 15043 | 14182 | -5016 | 58111 |
| YANOV | YNV | DHZ | 1934 | .212 | 20081 | 20081 | 74 | 42863 | DHZ | 1934 | .212 | 20081 | 20081 | 74 | 42863 |
| YELLOWKNIFE | YKC | DHZ | 1975 | 29.140 | 8660 | 7564 | 4217 | 60249 | XYZ | 1983 | 27.197 | 8706 | 7743 | 3979 | 60109 |
| YUZHNO SAKHALINSK | YSS | DHZ | 1942 | -9.382 | 25149 | 24813 | -4100 | 44700 | DHZ | 1983 | -10.098 | 25200 | 24810 | -4417 | 44733 |
| ZIKAWEI | ZKW | DHI | 1875 | -1.996 | 32043 | 32024 | -1116 | 33488 | DIH | 1907 | -2.560 | 33056 | 33023 | -1476 | 33768 |
| ZINSEN | ZIN | DHZ | 1918 | -5.685 | 29978 | 29831 | -2970 | 40170 | DHZ | 1943 | -6.360 | 30229 | 30043 | -3349 | 4034868 |

TABLE 6 GEOMAGNETIC ANNUAL MEAN LOG: 1810 - 1899

| OBSERVATORY | CODE | YEAR 1810 | 1820 | 1830 | 1840 | 1850 | 1860 | 1870 | 1880 | 1890 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 |
| AGINCOURT | AGN | | | | | | | | | ?? |
| ALIBAG | ABG | | | | 3333 | 3333333333 | 3333333333 | 3333333333 | 3333333333 | 3333333333 |
| ATHENS | ATH | | | | | | | | | ? |
| AUCKLAND ISLAND | AU* | | | | | | | * | | |
| BARNAUL | BM* | | | | ???????? | ?????????? | ?????????? | ???? | | |
| BARTH | BAH | | | | | | | | ? | ?????????? |
| BATAVIA | BTV | | | | | | | | 333333 | 333333333 |
| BEIJING | BJI | | | | | | ?? | 3333333333 | 3333 | |
| BEUTHEN | BEU | | | | | | | | | ? |
| BOCHUM | BOC | | | | | | | | | ??????? |
| BOSSEKOP 1 | BP* | | | * | | | | | | |
| BOSSEKOP 2 | BP* | | | | | | | | * | |
| BOUZAREAH | BZR | | | | | | | | ? | |
| BRESLAU | BS* | | | | | ? | | ?????? | | ???? |
| BUCHAREST | BVC | | | | | | | | | * |
| BUDAPEST | HB* | | | | | | | ? | ?? ?????????? | |
| CAP THORDSEN | SL* | | | | | | | | * | |
| CAPE GOOD HOPE | CGH | | | ?????* | | | | | | |
| CAPODIMONTE | CPD | | | | | | | | 33333333 | 3333333333 |
| CLAUSTHAL | CLZ | | | | ????? | ?????????? | ?????????? | ?????????? | ?????????? | ?????????? |
| COIMBRA | COI | | | | | | *222 | 2222222222 | 2222222222 | 2222222222 |
| COPENHAGEN | COP | | | | | | | | | 33333333 |
| DAR ES SALAAM | DM* | | | | | | | | | ??* |
| DE BILT | DBN | | | | | | | | | 2 |
| DUBLIN | DL* | | | ???? | ??333?33 | 3 | | | | |
| EAST PORT | EP* | | | | | | 22222 | | | |
| FALMOUTH | FAL | | | | | | | | | ????????? |
| FLENSBURG | FLE | | | | | | | | | ????????? |
| FORT RAE 1 | FE* | | | | | | | | * | |
| FREIBERG | FB* | | | | | | | | | ?????????? |
| GODHAAB 1 | GH* | | | | | | | | * | |
| GOTTINGEN | GT* | | | * ?????? | ?????????? | ???? ?? | | ? | | |
| GREENWICH | GRW | | *? ? | | ??????2222 | 2222222222 | ?222222222 | 2222222222 | 2222222222 | 2222222222 |
| HACKNEY WICK | HW* | | *?* | | | | | | | |
| HACKNEY WICK 2 | HW* | | *?? ??* | | | | | | | |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR 1881 0123456789 | 1882 0123456789 | 1883 0123456789 | 1884 0123456789 | 1885 0123456789 | 1886 0123456789 | 1887 0123456789 | 1888 0123456789 | 1889 0123456789 |
|---|---|---|---|---|---|---|---|---|---|---|
| HAMBURG | HM* | | | | | | | | ????? ? | ? ** |
| HAVANA | HVN | | | | | | | | | |
| HOLSTEINSBORG 1 | HS* | | | | | ? | | | 333333 | 3333333333 |
| HONG KONG | HKC | | | | | | | | 333 | 3333333333 |
| IRKUTSK | IRT | | | | | | | | | |
| IVIGTUT 1 | IV* | | | | | | * | | | |
| JAN MAYEN 1 | JM* | | | | | | | | * | |
| KAZAN | KZN | | | | | | | | | ?????? |
| KERGUELEN | KG* | | | | | | | * | | |
| KEW | KEW | | | | ? | * ?*?? | ?????????? | ?????????? | ????????* | ?????????? |
| KEY WEST | QW* | | | | | | 3333333 | | | |
| KIEL | KE* | | | | | * * | | * | ? | * |
| KINGUAFJORD | KJ* | | | | | | | | * | |
| KLAGENFURT | KF* | | | | | | | | | ????????? |
| KRAKAU (CRAKAU) | KX* | | | | | | | | | ? |
| KREMSMUNSTER | KRE | | | | | | | | | ????????? |
| LISBON | LIS | | | | | ? | | | | ??333333333 |
| LOS ANGELES | LA* | | | | | | | | *333333? | |
| LUANDA CAPELO | LUA | | | | | | | | ?33333 3 | |
| LUBECK | LB* | | | | | | | | ????? ???? | |
| MADRAS | MX* | | | | | ????? | | | | |
| MADRID | MDD | | | | | | | | ? ?????????? | ?????????? |
| MAKERSTOUN | MQ* | | | | ????????? | | | | | |
| MALIYE KARMAKULY | MKL | | | | | | | | * | |
| MANILA | MAN | | | | | | | | | 3 3333333333 |
| MAURITIUS | MRI | | | | | | | | | 22222222 |
| MELBOURNE | MEL | | | | | | | | | 3333333 |
| MEXICO | TE* | | | | | | | | * | |
| MOSCOW | MO* | | | | | | | | ????????? | |
| MUNICH | MNH | | | | ????????? | ?????????? | ?????????? | ?????????? | ??????? | ? |
| NANORTALIK 1 | NN* | | | | | | | | ** | |
| NERTSCHINSK | NK* | | | | ????????? | ?????????? | ????? | | | |
| NEUFAHRWASSER | NF* | | | | | | | | | ????? |
| NICE | NCE | | | | | | | | 33333 | 33******** |
| O GYALLA | OGY | | | | | | | | | ?????? |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR | 1818 0123456789 | 1819 0123456789 | 1820 0123456789 | 1821 0123456789 | 1822 0123456789 | 1823 0123456789 | 1824 0123456789 | 1825 0123456789 | 1826 0123456789 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ODESSA | ODE | | | | | | | | | | ???? |
| ORANGE BAY | OB* | | | | | | | | | * | |
| OSLO | OSL | | | | | 3333333 | 3333333333 | 3333333333 | 3333333333 | 3333333333 | 3333333333 |
| PARC ST. MAUR | PSM | | | | | | | | | ??????? | ?????????? |
| PERPIGNAN | PER | | | | | | | | | ????? | ?????????? |
| PHILADELPHIA | PH* | | | | ????? | | | | | | |
| PITLEKAJ | PL* | | | | | | | | * | | |
| POLA | POL | | | | | | | | | ??3333333 | 3333333333 |
| POTSDAM | POT | | | | | | | | | | 2222222222 |
| PRUHONICE | PRU | | | ?????????? | ?????????? | ?????????? | ?????????? | ?????????? | ?????????? | ?????????? | ?????????? |
| RIO DE JANEIRO | RDJ | | | | | | | | | | 3 |
| ROSTOCK | RO* | | | | | | | | | | ?????? |
| SAN FERNANDO | SFS | | | | | | | | | ?????????? | ?333333333 |
| SANTIAGO | SNT | | | | | *?? | | | | | ? |
| SCORESBYSUND 1 | SY* | | | | | | | | | | * |
| SINGAPORE | SG* | | | | ???????? | | | | | | |
| SLUTZK | SLU | | | | | | | | ?? | ?????????? | ?????????? |
| SODANKYLA | SOD | | | | | | | | | * | |
| SOUTH GEORGIA | SGE | | | | | | | | | * | |
| SSAGASTYR | GY* | | | | | | | | | ? | |
| ST HELIER | STH | | | | | | | | | | ?? |
| ST PETERSBURG | LN* | | | | | | | ? 3?333333 | | | |
| STETTIN-ZABELSDO | SZA | | | | | | | | | | ???????? |
| STONYHURST | STO | | | | | | ????? | ??????3333 | 3333333333 | 3333333333 | 3333333333 |
| SVERDLOVSK | SVD | | | | ????????? | ?????????? | ?????????? | ? | | 222 | 2222222222 |
| SYDNEY | SN* | | | | | | | | | | * |
| TACUBAYA | TAC | | | | | | | | | | 2 |
| TANANARIVE | TAN | | | | | | | | | | 33333 |
| TASHKENT | TKT | | | | | | | | | ? ? | |
| TASUISAK | AJ* | | | | | | | | | | * |
| TBILISI | TFS | | | | | | | | ? | 3333333333 | 3333333333 |
| TOKYO | TOK | | | | | | | | | 2 | 222 |
| TORONTO | AG* | | | | ? 2?2 | 2??2 | 22 2 | 22222222 | ?222222222 | | 222222222 |
| TOULOUSE | TLS | | | | | | | | | ? | ?????? |
| TRIVANDRUM | TRD | | | | | ?????? | ?????????? | | | | |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR 0123456789 (1881) | 0123456789 (1882) | 0123456789 (1883) | 0123456789 (1884) | 0123456789 (1885) | 0123456789 (1886) | 0123456789 (1887) | 0123456789 (1888) | 0123456789 (1889) |
|---|---|---|---|---|---|---|---|---|---|---|
| UCCLE | UCC | | | | | | | | | ????????? |
| UTRECHT | WI* | | | | | | | | | 33333?3 |
| VALENTIA | VAL | | | | | | | | | 3 |
| WARSAW | SW* | | | | | | | | | ? |
| WASHINGTON 1 | CH* | | | | | | 22* | | | |
| WASHINGTON 2 | FR* | | | | | | | | | ?2 222 |
| WASHINGTON CITY | FR* | | | | ** | | | | | |
| WASHINGTON NEW | FR* | | | | | | | | | 2 |
| WIEN-KOBENZL | WIK | | | | | | | | | ??????? |
| WILHELMSHAVEN | WLH | | | | | | | | 333333 | 3333333333 |
| WUSTROW | WUS | | | | | | | | | ?????? |
| ZIKAWEI | ZKW | | | | | | | 33333 | 3333333333 | 3333333333 |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

TABLE 7 GEOMAGNETIC ANNUAL MEAN LOG: 1900 - PRESENT

| OBSERVATORY | CODE | YEAR | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | R | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0 |
| ABINGER | ABN | | | | | 22222 | 2222222222 | 2222222222 | 2222222** | | | |
| ABISKO | ABK | | | | 2 | 2 | 2222 2 | Q 2 | 2225 | 2222222DDD | DD 22222 | 2222222222 2222 |
| ADAK | ADA | | | | | | | | | | *** | |
| ADDIS ABABA | AAE | | | | | | | | | 22 | 2222222222 | 22222Q2222 222 |
| AGINCOURT | AGN | | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 22222*2222 | 2222222222 | 222222222* | * | | |
| ALERT | ALE | | | | | | | | | | *11111111 | 11*1111111 1111 |
| ALIBAG | ABG | | 3333332222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 |
| ALMA ATA | AAA | | | | | | | | | | *222222 | 2222222222 222 |
| ALMERIA | ALM | | | | | | | | | 22222 | 2222222222 | 2222222222 222 |
| AMATSIA | AMT | | | | | | | | | | | 2222 22 |
| AMBERLEY | AML | | | | | 2 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 22222211 | |
| ANCHORAGE | AMU | | | | | | | | *2 | | | |
| ANGRA HEROISMO | ANH | | | | | | | | ZZZ | ZZZZZZZZZZ | Z | |
| ANNAMALAINAGAR | ANN | | | | | | | | *22 | 2222222222 | 2222222222 | 222 |
| ANTIPOLO | ANO | | | 233332222 | 2222222222 | 222222222D | D | | | | | |
| APIA | API | | 33333 | 3333333333 | 3332222332 | 2333322222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2111 |
| ARGENTINE ISLAND | AIA | | | | | | | | *22 | 2222222222 | 2222222222 | 2222 |
| ARTI | ARS | | | | | | | | | | 2222222 | 2222 |
| ASHKHABAD | ASH | | | | | | | | 2 | 2222222222 | 2 22222222 | 222 |
| ASO | ASO | | | | | | | | 2 | | | |
| ATHENS | ATH | | 333333333 | | | | | | | | | |
| AU TAU | AUT | | | | | *33 | 3333333333 | | | | | |
| AVERROES | AVE | | | | | | | | | | R 2 2 | |
| BAKER LAKE | BLC | | | | | | | | *11111111 | 1111111111 | 1111111111 | 1111 |
| BALDWIN | BAL | | 22222222* | | | | | | | | | |
| BANGUI | BNG | | | | | | | | * | 22222 | *222222222 | 2222222222 2222 |
| BARRACKPORE | BAC | | | 333333 | 33333 | | | | | | | |
| BARROW | BRW | | | | | | * | | 3 | 3333333333 | 3332222*22 | 2222222222 222 |
| BARTER ISLAND | BTI | | | | | | | | | 2 | | |
| BARTH | BAH | | 3333 | | | | | | | | | |
| BATAVIA | BTV | | | *2332332 | 2332332222 | 222222222 | | | | | | |
| BEAR ISLAND | BJN | | | | | | * | | | 222222222 | 2222222222 | 2222222222 2222 |
| BEIJING | BJI | | | | | | | | | 222 | 2222222222 | 2222222222 2222 |
| BELOIT | BLT | | | | | | | | | *2 | | |
| BELSK | BEL | | | | | | | | | | 2QQQQQ2222 | 2222222222 2222 |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR | 1901234567 | 1911234567 | 1921234567 | 1931234567 | 1941234567 | 1951234567 | 1961234567 | 1971234567 | 1981234567 | 1990 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BEUTHEN | BEU | | DDDDDDDDD | D | | | | | | | | |
| BEUTHEN MIKILOW | BMK | | | | | DDDDD DDD | | | | | | |
| BIG DELTA | BDE | | | | | | | *2 | | | | |
| BINZA | BIN | | | | | | | 2222222 | 2222222222 | 2222 | | |
| BOCHUM | BOC | | DDDDDDDDDD | DDDDDDDDDD | DDDDDDDDDD | DDDDD | | | | | | |
| BOROK | BOX | | | | | | | | | ? | 222 | |
| BOULDER | BOU | | | | | | | | 222222 | 2222222222 | 222 | |
| BOUZAREAH | BZR | | D********* | ********** | ********** | ********** | **** *** | * | | | | |
| BRORFELDE | BFE | | | | | | | | | | 2 | |
| BUDAKESZI | BUZ | | | | | | 2 | 222222* | | | | |
| BUDKOV | BDV | | | | | | | | | 222 | 2222222222 | 222 |
| BURLINGTON | BRT | | | | | | | 2 | | | | |
| BYRD STATION | BYR | | | | | | | *22 | 222222 | 2* | | |
| CAMBRIDGE BAY | CBB | | | | | | | | | | 22222111 | 1111 |
| CANARIAS | TEN | | | | | | | 2 | 222222 | 222 | 2Q22222222 | 2 |
| CANBERRA | CAN | | | | | | | | | | P | P222 |
| CAPE CHELYUSKIN | CCS | | | | | 22 | 2 222222 | 2 | 222222 | 2222222222 | 2222222222 | 222 |
| CAPE HALLETT | HLL | | | | | | | *2* | **2 | | | |
| CAPE TOWN | CTO | | | | | 2222222 | 2 | | | | | |
| CAPE WELLEN | CWE | | | | | D522222 | 2222 | 22D5222222 | 2222222222 | 2222222222 | 222 | |
| CAPODIMONTE | CPD | | 3333333333 | 33888IIIII | II | | | | | | | |
| CARROLLTON | CAX | | | | | | | 2 | | | | |
| CASEY | CSY | | | | | | | | | | 22 | 222 |
| CASPER | CSR | | | | | | | 2 | | | | |
| CASTELLACCIO | CAO | | | | | 3333333 | 3333354333 | 3355333333 | 333 | *III4 | | |
| CASTLE ROCK | CRC | | | | | | | | | 22222 | | |
| CHA PA | CPA | | | | | | | 2 | *22 | 2222222222 | 222222222 | |
| CHAMBON-LA-FORET | CLF | | | | | 2222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| CHANGCHUN | CNH | | | | | | | | | | 2 | 22 |
| CHARCOT | CTX | | | | | | | ZZ | | | | |
| CHELTENHAM | CLM | | 222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 222222** | | | | |
| CHICHIJIMA | CBI | | | | | | | | | | 222 | |
| CHRISTCHURCH | CHR | | 22222222 | 2222222222 | 2222222222 | 2 | | | | | | |
| CLAUSTHAL | CLZ | | DDDDDDDDDD | DDDDDDDDD | | | | | | | | |
| COIMBRA | COI | | 2222222223 | 3223333322 | 2322322232 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2 | 22 |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR | 1901234567 | 1901234567 | 1902345678 | 1903456789 | 1904567890 | 1905678901 | 1906789012 | 1907890123 | 1908901234 | 1909012345 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COLLEGE | CMO | | | | | 2 | *2222**22 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| COSTA RICA | SNJ | | | | | | | | | | * | |
| CRACOW | CRA | | DDD4 | D444 | DDDDDD | D DDD | | | | | | |
| CUAJIMALPA | CUA | | D3344DD | D33 | 3 | | | | | | | |
| DALLAS | DAL | | | | | | | | 222222 | 22222 | | |
| DAVAO | DAV | | | | | | | | | HH | HHHHHHHH | |
| DAVIS | DVS | | | | | | | | | | * | 222 |
| DE BILT | DBN | | 3333333333 | 3333332222 | 2222222222 | 222222222 | | | | | | |
| DEHRA DUN | DDI | | 3322222 | 2222222222 | 2222222222 | 2222222222 | 222* | | | | | |
| DEKELEIA | DEK | | | | | 25222 | | | | | | |
| DIXON ISLAND | DIK | | | | | 2222222 | 22222 5 Q2 | 2222222222 | 2222222222 | 2222222222 | 222 | |
| DOMBAS | DOB | | | 2222 | 2222222222 | 2222222222 | 222222222D | DD22222222 | 2222222222 | 2222222222 | 222 | |
| DOURBES | DOU | | | | | | | DDD22222 | 2222222222 | 2222222222 | 2222 | |
| DUMONT DURVILLE | DRV | | | | | | | *1Z | 1 11111111 | 1111111111 | 1111 | |
| EASTER ISLAND | EIC | | | | | | | 3* | **2 * | | | |
| EBRO | EBR | | 2 2 | 2222222222 | 2222222222 | 22222222 | 2222255 | 2222222222 | 2222222222 | 22222222 | 2 | |
| EIGHTS | EGS | | | | | | | | *2* | | | |
| EL ABIOD SIDI | EAS | | | | | | DD | *DDDD | | | | |
| ELIZABETHVILLE | ELI | | | | | ***22222 | 2222222222 | 22222222* | | | | |
| ESKDALEMUIR | ESK | | 22 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| ESPANOLA | EPN | | | | | | | 2 | | | | |
| EUSEBIO | EUS | | | | | | | | | *** | | |
| EYREWELL | EYR | | | | | | | | | 22 | 1 | |
| FALMOUTH | FAL | | 2222222222 | 222 | | | | | | | | |
| FANNING | FAN | | | | | | | *2 | | | | |
| FLENSBURG | FLE | | DDDD | | | | | | | | | |
| FORT CHURCHILL | FCC | | | | | | | *2 | 222222 | 2121221111 | 1111 | |
| FORT YUKON | FYU | | | | | | | 2 | | | | |
| FREDERICKSBURG | FRD | | | | | | | 2222 | 2222222222 | 2222222222 | 2222 | |
| FUQUENE | FUQ | | | | | | | *22222 | 2222222222 | 2222222222 | 2*2 | |
| FURSTENFELDBRUCK | FUR | | | | | | 2 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| GIBILMANNA | GIB | | | | | | | * 2D | | | | |
| GLENLEA | GLL | | | | | | | | | | | 1 |
| GNANGARA | GNA | | | | | | | | 2 2222222222 | 2222222222 | 2222 | |
| GODHAVN | GDH | | | | | 5222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 | 2222* |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR 0123456789 | 1901 0123456789 | 1902 0123456789 | 1903 0123456789 | 1904 0123456789 | 1905 0123456789 | 1906 0123456789 | 1907 0123456789 | 1908 0123456789 | 1909 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GONZALES VIDELA | GVD | | | | | | | 2 | | | |
| GREAT WHALE R. | GWC | | | | | | | | 2222 | 1211221111 | 1111 |
| GREENWICH | GRW | | 2222223333 | 3333332222 | 222222 | | | | | | |
| GROCKA | GCK | | | | | | | 22 | 2222222222 | 2222222222 | 2222 |
| GUAM | GUA | | | | | | | *22 | 2222222222 | 2222222222 | 2222 |
| GUANGZHOU | GZH | | | | | | | 22 | | | 22 |
| HALLEY BAY | HBA | | | | | | | *22 | 2222222 | 2 | |
| HARTEBEESTHOEK | HBK | | | | | | | | | RRRRRRR | 2222 |
| HARTLAND | HAD | | | | | | | 222 | 2222222222 | 2222222222 | 2222 |
| HATIZYO | HTY | | | | | | | | *FF | F * | 2222 |
| HAVANA | HVN | | | | | | | | | 5552 | 2222222 |
| HEALY | HEA | | | | | | | *2 | | | |
| HEARD ISLAND | HII | | | | | * | **22* | | | | |
| HEISS ISLAND | HIS | | | | | | | 2 | 2222222222 | 2222QQ2222 | 22 |
| HEL | HLP | | | | 25 | | 2 | 222 | 2222222222 | 2222222222 | 2222 |
| HELWAN | HLW | 2222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 22DDDD2222 | * | | | |
| HERMANUS | HER | | | | | 222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 |
| HERMSDORF | HDF | DDDDDDDDD | DDDDDDDDDD | DDDDDDDDDD | | | | | | | |
| HOLLANDIA | HNA | | | | | | | *22 | 22* | | |
| HONG KONG | HKC | 3333333333 | 3333333333 | 333333333 | | | | | | 22222 | |
| HONOLULU | HON | 22222222 | 2222222222 | 2222222222 | 2222222222 | 2222222*22 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 |
| HUANCAYO | HUA | | | 22222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 |
| HURBANOVO | HRB | | | | | D2 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 |
| HYDERABAD | HYB | | | | | | | | 22222 | 2222222222 | 222 |
| IBADAN | IBD | | | | | | | 2222 | 222 | | |
| IRKUTSK | IRT | 3333333333 | 3333322222 | 2222*22*22 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 |
| ISTANBUL-KANDILL | ISK | | | | | | D222 | 2222222222 | 2222222222 | 2222222222 | |
| JAIPUR | JAI | | | | | | | | | | * 2222 |
| JALUIT | JAL | | | | | DD | DDD | | | | |
| JARVIS ISLAND | JRV | | | | | | | *2 | | | |
| JASSY | JSS | | | | 333333333 | 3333 | 33333 | 333333338 | I333 8 8 Q | Q | |
| JULIANEHAAB | JUL | | | | *2* | | | | | | |
| JULIANEHAAB II | JUL | | | | | | | * | ** * | | |
| KAKIOKA | KAK | | | 2222555 | 5555222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 |
| KANOYA | KNY | | | | | | | 22 | 2222222222 | 2222222222 | 2222 |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR | 1 9 0 | 1 9 1 | 1 9 2 | 1 9 3 | 1 9 4 | 1 9 5 | 1 9 6 | 1 9 7 | 1 9 8 | 1 9 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0 |
| KANOZAN | KNZ | | | | | | | | 222222222 | 2222222222 | 2222 | |
| KARAGANDA | KGD | | | | | | | | 22222 | 2222222222 | 2222 | |
| KARAVIA | KVA | | | | | | | 22 ** | | | | |
| KARSANI | KAS | | 33333 | 33332555 | DDDDD32222 | 22222 | | | | | | |
| KATUURA | KAT | | | | | | *DDD | DDDD | | | | |
| KAZAN | KZN | | 2222222 | 22332222 | **22222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 22255 | 22 | 2222 |
| KELES | KEL | | | | | 2222 | 2222222222 | 2222222222 | 2222* | | | |
| KEW | KEW | | 2222222222 | 2222222222 | 22222 | | | | | | | |
| KIEV | KIV | | | | | | | *2 | 2222222222 | 2222222222 | 2222 | |
| KIRUNA | KIR | | | | | | | | 2 | 2222222222 | 22 | |
| KODAIKANAL | KOD | | 23322222 | 2222222222 | 222* | | | 2222222222 | 2222222222 | 222222 | 222 | 22 |
| KOROR | KOR | | | | | | | *2 | 5 | *2* | | |
| KOTZEBUE | KOT | | | | | | | 2 | | | | |
| KREMSMUNSTER | KRE | | D3333 | | | | | | | | | |
| KSARA | KSA | | | | | *DDDDD5222 | 2222222222 | 2222222222 | 2222222222 | 2 | | |
| KUTCHINO | KTC | | | | 2233 | 2252 | 2 | | | | | |
| KUYPER | KUY | | | | 2 | 2222222222 | 22222 | D 2222222222 | 22 | | | |
| L AQUILA | AQU | | | | | | | | 2222222222 | 2222222222 | 2222 | |
| LA PAZ | LPB | | | | | | | | | 222 | | |
| LA QUIACA | LQA | | | | 2222222222 | 2222 | 22222222 | 2222*2225 | 5222222222 | 2222222555 | 5552 | |
| LANZHOU | LZH | | | | | | | 2 | 22 | | 2222 | |
| LAS ACACIAS | LAS | | | | | | | | 2 | 22 | | |
| LAUDER | LAU | | | | | | | | | 2 | | |
| LAZAREV | LZV | | | | | | | | 2 | | | |
| LEADVILLE | LDV | | | | | | | 2 | | | | |
| LEIRVOGUR | LRV | | | | | | | *22 | 2222222222 | 2222222222 | 2222 | |
| LENINGRAD | LNN | | | | | | 222 | 2222222222 | 2222222222 | 2222222222 | 222 | |
| LERWICK | LER | | | | 2232222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| LHASA | LSA | | | | | | | 222 | 2222222222 | 22222 | | |
| LISBON | LIS | | 3 | | | | | | | | | |
| LITTLE AMERICA | LAA | | | | * | | | | | | | |
| LITTLE AMERICA I | LAA | | | | | * | * | * | * | | | |
| LITTLE AMERICA V | LAA | | | | | | | *2 | | | | |
| LOGRONO | LGR | | | | | | | *22 | 2222222222 | 2222222 | | |
| LOVO | LOV | | | | 52 | 2222322223 | 2333322222 | 2222222222 | 2222222222 | 2222222222 | 2111 | |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0 |
| LUANDA | LUA | | | | | | 55 | | | | |
| LUANDA BELAS | LUA | | | | | | 255222 | 2222222222 | 222222222* | *222 | |
| LUANDA CAPELO | LUA | | 444444444 | 4444444444 | | | | | | | |
| LUKIAPANG | LKP | | *3 | 3333332222 | 2222222222 | 2222 | | | | | |
| LUNPING | LNP | | | | | | | | *2222 | 2222222222 | 2222 |
| LVOV | LVV | | | | | | 25555222 | 2222222222 | 2222222222 | 222 | |
| LWIRO | LWI | | | | | | | *2 | 2* ***2*22 | 2 | |
| M BOUR | MBO | | | | | | *2222222 | 2222222222 | 2222222222 | 2222 | |
| MACQUARIE ISLAND | MCQ | | | | | * | *222222222 | 2222222222 | 2222222222 | 2222 | |
| MAGADAN | MGD | | | | | | | 2222522222 | 222222222Q | 2222 | |
| MAISACH | MAS | | | | 222 | 222 | | | | | |
| MAITUN | MAI | | | | | 5 | 2**22555 | | | | |
| MAJURO | MJR | | | | | | | | *2* | | |
| MANHAY | MAB | | | | 52D22222 | 222 | 2222 | 2222222222 | 2222222222 | 2222 | 2 |
| MANILA | MAN | | 23333 | | | | | | | | |
| MAPUTO | LMM | | | | | | | 222 | 2222222222 | 2222222222 | 2222 |
| MARION ISLAND | MRN | | | | | | | | | *2222 | |
| MARTIN DE VIVIES | AMS | | | | | | | | | | *21 |
| MATOCHKIN SHAR | MSR | | | | *2 | 22 | *22 | 222 22 | 266 | | |
| MAURITIUS | MRI | | 3333333333 | 3332222222 | 2222222222 | 2222222222 | 2222222222 | 2222255522 | 222222* | | |
| MAWSON | MAW | | | | | | | | *2222 | 2222222222 | 2222222222 | 2222 |
| MEANOOK | MEA | | | *322 | 2332222222 | 3222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222111 | 1111 |
| MELBOURNE | MEL | | 3333333DDD | D3 | 33333 | 3 | | | | | |
| MEMAMBETSU | MMB | | | | | | | **22222222 | 2222222222 | 2222222222 | 2222 |
| MIDWAY | MDY | | | | | | | | *** | | |
| MINSK | MNK | | | | | | | | 222222222 | 2222222222 | 222 |
| MIRNY | MIR | | | | | | | | *222 | 2222222222 | 2222222222 | 222 |
| MISALLAT | MLT | | | | | | | | | *222222222 | 22222 | 2 2 |
| MIZUSAWA | MIZ | | | | | | | | | 2 | 2222222222 | 2222 |
| MOCA | MFP | | | | | | | | 22 | 2222222222 | 22 | |
| MODIIM | MOD | | | | | | | | | | 2 | |
| MOLODEZHNAYA | MOL | | | | | | | | | 22222 | 2222222222 | 222 |
| MONTE CAPELLINO | MCP | | | | | | | | *2 | 222 | | |
| MOSCOW | MOS | | | | | | 2222 | 2222222222 | 2222222222 | 2222222222 | 222 |
| MOULD BAY | MBC | | | | | | | | *2222222 | 2222222111 | 1111 |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0123456789 | 0 |
| MUNICH | MNH | | 2222222222 | 2222DDDDDD | DDDDDDD | | | | | | | |
| MUNTINLUPA | MUT | | | | | | | 222222222 | 2222222222 | 2222222222 | 222 | |
| MURMANSK | MMK | | | | | | | *2 | 2222222222 | 2222222222 | 22 | |
| NAGYCENK | NCK | | | | | | | | 222222222 | 2222222222 | 22 | |
| NAIROBI | NAI | | | | | | | | *2*222 | 222222222 | | |
| NANTES | NTS | | | | 2222222 | 2222222222 | 2222222222 | 222222222 | | | | |
| NARSSARSSUAQ | NAQ | | | | | | | | | *2 | 22******** | ***2* |
| NEW YEARS ISLAND | NYI | | 33333333 | 3333333 | | | | | | | | |
| NEWPORT | NEW | | | | | | | | | *222 | 2222222222 | 22* |
| NIEMEGK | NGK | | | | | 222222222 | 2222222222 | 2222222222 | 2322222222 | 2222222222 | 1121 | |
| NITSANIM | NCK | | | | | | | | 5 | 2 | | |
| NIZHNEDEVITSK | NNV | | | | | 22DDD | 5 | | | | | |
| NORTHWAY | NRW | | | | | | | 2 | | | | |
| NORWAY STATION | NWS | | | | | | | | 22* | | | |
| NOVOKAZALINSK | NKK | | | | | | | | | | 222222 | 2222 |
| NOVOLAZAREVSKAYA | NVL | | | | | | | | 222222222 | 2222222222 | 222 | |
| NOVOSIBIRSK | NVS | | | | | | | | | 222 | 2222222222 | 2222 |
| NURMIJARVI | NUR | | | | | | | 2222222 | 2222222222 | 2222222222 | 2211 | |
| O GYALLA | OGY | | 3333333333 | 333335555D | DDDD | | | | | | | |
| OASIS | OAS | | | | | | | 22 | | | | |
| ODESSA | ODE | | *D 3* | 3 | 4333 | 2222 | 2 2 | 22 | 2222222222 | 2222222222 | 2222222222 | 2222 |
| ORCADAS DEL SUR | ORC | | 22452 | 522DD* DDD | DDDDDDD5D* | 522222222 | 2222222222 | 22222H5H22 | 52 | | | |
| OSLO | OSL | | 3333333355 | 5555555555 | 5555555555 | 5 | | | | | | |
| OTOMARI | OTM | | | | DDDDDDDDDD | DDDDDDDDDD | DDDD | | | | | |
| OTTAWA | OTT | | | | | | | | | *2 | 2222222211 | 1111 |
| P. TUNGUSKA | POD | | | | | | | | | 2 | 2222225555 | 2222 |
| PALAU | PLA | | | | | DDDD | DDDDDDDDDD | DD | | | | |
| PAMATAI | PPT | | | | | | | | | **** | 2222222222 | 2222 |
| PANAGYURISHTE | PAG | | | | | | | 22 | 2222222222 | 2222222222 | 2222222222 | 222 |
| PARAMARIBO | PAB | | | | | | | | *22 | 2222222222 | 22222 | |
| PARC ST. MAUR | PSM | | 2 | | | | | | | | | |
| PATRICK | PAT | | | | | | | | *2* | | | |
| PENANG | PNN | | | | | | | | | | * | |
| PENDELI | PEG | | | | | | | | | 2 | 2 | |
| PERPIGNAN | PER | | 2 | DDD | D | | | | | | | |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR | 1901234567 | 1901234567 | 1901234567 | 1901234567 | 1901234567 | 1901234567 | 1901234567 | 1901234567 | 1901234567 | 1 9 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PETROPAVLOVSK | PET | | | | | | | | | 2 | 2222222222 | 222 |
| PILAR | PIL | | 22222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222555 | *222222222 | 2222222222 | 2222 | |
| PIONERSKAYA | PIO | | | | | | | 22 | | | | |
| PLAISANCE | PLS | | | | | | | | 2QQQ | QQ | 2 | |
| PLATEAU | PTU | | | | | | | | 222 | | | |
| POLA | POL | | 2233333333 | 3333332222 | 22 | | | | | | | |
| PORT ALFRED | CZT | | | | | | | | | | 222222 | 222 |
| PORT MORESBY | PMG | | | | | | | **2 | 2222222222 | 2222222222 | 2222 | |
| PORT-AUX-FRANCAI | KGL | | | | | | | *22 | 2222222222 | 2222222222 | 222 | |
| POTSDAM | POT | | 3333333333 | 3333332222 | 222222222 | | | | | | | |
| PRICE | PCU | | | | | | | 2 | | | | |
| PRUHONICE | PRU | | 55555DDDDD | DDDDDDDDDD | DDDDDDD | | 2222 | 2222222222 | 2222222222 | 222 | | |
| QUETTA | QUE | | | | | | | *222222 | 2222222222 | 222222 | 22 | 22 2 |
| REGENSBERG | REG | | | | | | | 5222 | 2222222222 | D | 2 | |
| RESOLUTE BAY | RES | | | | | | | DD222222 | 2222222222 | 2221111111 | 1111 | |
| RIO DE JANEIRO | RDJ | | 2222222D D | D | | | | | | | | |
| ROBURENT | ROB | | | | | | | | | *22222 | 2222 | |
| ROI BAUDOUIN | RBD | | | | | | | ** | | *22 | | |
| RUDE SKOV | RSV | | 222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 22 | |
| SABHAWALA | SAB | | | | | | | | | 222222 | 2222222222 | 22 |
| SAN FERNANDO | SFS | | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 222222225 | | |
| SAN JOSE | SJL | | | | | | | | | *2552* | 222255* | |
| SAN JUAN | SJG | | | | 2222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| SANAE | SNA | | | | | | | | *2222222 | 2*2222222* | 2222 | |
| SANTIAGO | SNT | | D 44444444 | | | | | | | | | |
| SAO JOSE CAMPOS | SJB | | | | | | | | | | *F* | |
| SÃO MIGUEL | SMG | | | 355D33333 | 3333335333 | 3333333333 | 3333333333 | 3222222222 | 2222222222 | 22222222 | | |
| SCOTT BASE | SBA | | | | | | | *2* | * 222222 | 2222222222 | | |
| SEDDIN | SED | | 23 | 3333332222 | 2222222222 | 22 | | | | | | |
| SHESHAN | SSH | | | | | 222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 |
| SHILLONG | SHL | | | | | | | | | | 2 | 22 |
| SIMFEROPOL | SIM | | | | | | | 2 | | | | |
| SIMOSATO | SSO | | | | | | | *22222 | 2222222222 | 22222222 | | |
| SITKA | SIT | | 23322222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 22222222** | 2222 | |
| SLUTZK | SLU | | 3333333333 | 3333332222 | 2222222222 | 2222222222 | 2* 2* | | | | | |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR 0123456789 | 1991 0123456789 | 1992 0123456789 | 1993 0123456789 | 1994 0123456789 | 1995 0123456789 | 1996 0123456789 | 1997 0123456789 | 1998 0123456789 | 1999 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SODANKYLA | SOD | | 2222*2 | 2222222222 | 2222222222 | 22222*2222 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| SOUTH GEORGIA | SGE | | | | | | | | 22222 | 22 | |
| SOUTH POLE | SPA | | | | | | | 2 | 2222222222 | 22 | |
| SREDNIKAN | SRE | | | | | 2222 | 5222222D22 | 2222222222 | 2222522* | | |
| ST HELIER | STH | 44444444 | | | | | | | | | |
| ST JOHNS | STJ | | | | | | | | *2 | 2222222111 | 1111 |
| STARA DALA | STA | | | | DDDDDD | DDDDDD444D | 42222DDD | | | | |
| STONYHURST | STO | 3333333333 | 3333333333 | 3232233323 | 2333232223 | 2222 | | | 2222222 | | |
| SURLARI | SUA | | | | | | 5 | 2222222222 | 222222222* | *222222222 | 2 |
| SVERDLOVSK | SVD | 3333333333 | 3333332222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222 | | |
| SWIDER | SWI | | | 222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 555DD | | |
| SYOWA STATION | SYO | | | | | | | 22 | *22 2222 | 2222222222 | 222 |
| TACUBAYA | TAC | D I | | 3 | | | | | | | |
| TAHITI | TAH | | | | | | | ** | | | |
| TAIPEI | TAP | | | D | DDDDDDDDDD | DDDDDDDDDD | D | *DDDDDDDD | DDDDDDDD | | |
| TAMANRASSET | TAM | | | | | ***32222 | *22555**55 | 5222222222 | 2222222222 | 2222222222 | 22 |
| TANANARIVE | TAN | 22222222 | 2222222222 | 222 | 2 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222 | * 2 |
| TANGERANG | TNG | | | | | | | | 222222 | 2222222222 | 2222 |
| TASHKENT | TKT | 2 D D | | | D | 22*2 24255* | | | 222222 | 2222222222 | 222 |
| TATUOCA | TTB | | | | | ** | | *22 | 2222222222 | 22 3 | 3 |
| TBILISI | TFS | 333333 | | | | | *2 | 2222222222 | 2222222222 | 2222222222 | 222 |
| TEHRAN | TEH | | | | | | | | 2222222222 | 2222 | |
| TEOLOYUCAN | TEO | | | 2 5DDD | *D22222222 | 2222222222 | 2222222*62 | 2222222222 | 2222222222 | 222222 | |
| THULE | THL | | | | | ** | 222 | 222 *2222 | 2222222222 | 222222222* | 2**** |
| TIHANY | THY | | | | | | | 22222 | 2222222222 | 2222222222 | 222R |
| TIKHAYA BAY | TKH | | | | | 2222222 | 2222222 | 2H52222D | | | |
| TIXIE BAY | TIK | | | | | | 2222 2 | 2222222222 | 22222222 | 2222222222 | 225 |
| TOKYO | TOK | 2333333333 | 333 | | | | | | | | |
| TOLEDO | SPT | | | | | | 222 | 2222222222 | 2222222222 | 2222222222 | 222 |
| TOMSK | TMK | | | | | | | 22 | 2222222222 | | |
| TOOLANGI | TOO | | | 3 | 3333222222 | 2222222333 | 2333*33332 | 2222222222 | 2222222222 | 222222222* | |
| TOULOUSE | TLS | *33333 | | | | | | | | | |
| TOUNGOO | TGO | | 33333 | 3333332222 | 222* | 3 | | | | | |
| TOYOHARA | TOH | | | | | *2222222 | *2222 | | | | |
| TRELEW | TRW | | | | | | | *22 | 2222222222 | 2 22 | |

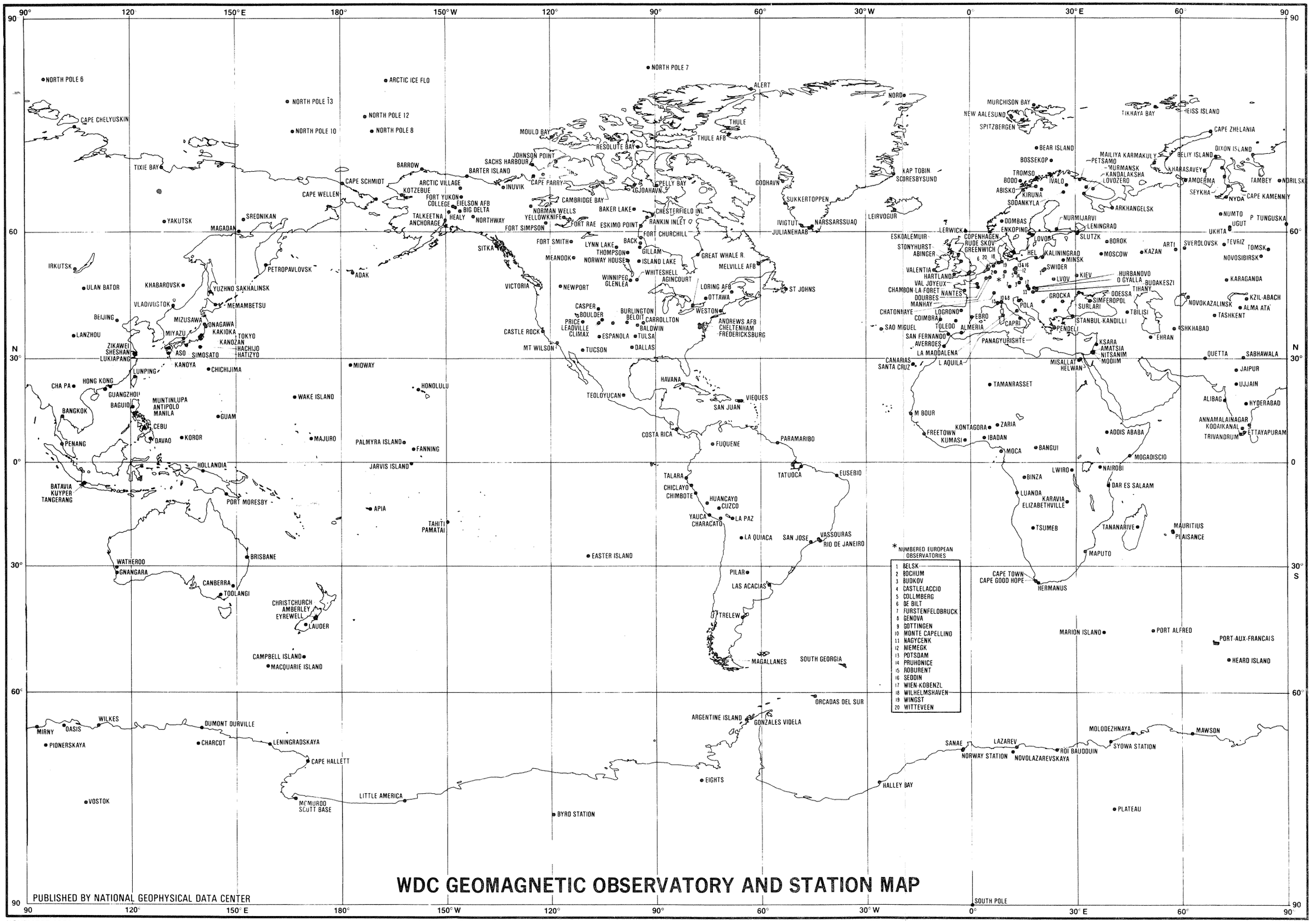
1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

| OBSERVATORY | CODE | YEAR | 1901234567 | 1912345678 | 1923456789 | 1934567890 | 1945678901 | 1956789012 | 1967890123 | 1978901234 | 1989012345 | 1990 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRIVANDRUM | TRD | | | | | | | *22 | 2222222222 | 2222222222 | 2222 | |
| TROMSO | TRO | | | | | 5222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| TSINGTAO | TSI | | D3D | DD3 | 2222 | 2 | 222222 | 2222222 | | | | |
| TSUMEB | TSU | | | | | | | | *22222 | 2222222222 | 2222 | |
| TUCSON | TUC | | | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| TULSA | TUL | | | | | | | | * | *** | | |
| TUNTUNGAN | | | | | | | | | | | 2 | |
| UCCLE | UCC | | 2333333333 | 3333333344 | 444DDDDDD5 | DDDDD | D | DD | DD | | | |
| UJJAIN | UJJ | | | | | | | | | | 2 | 22 |
| ULAN BATOR | UBA | | | | | | | | 2222 | 22222222 | | |
| URUMQI | WMQ | | | | | | | | | | 2222 | |
| VAL JOYEUX | VLJ | | 222333333 | 3333332222 | 2222222222 | 2222222 | | | | | | |
| VALENTIA | VAL | | 3333333333 | 3333333333 | 3333333333 | 3333333333 | 3333333333 | 3333222222 | 2222222222 | 2222222222 | 2222 | |
| VASSOURAS | VSS | | | DDDD2 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| VICTORIA | VIC | | | | | | | **22 | 2222222222 | 2222222111 | 1111 | |
| VIEQUES | VQS | | 322222 | 2222222222 | 2222* | | | | | | | |
| VLADIVOSTOK | VLA | | | | | | | D22222222 | 2222222222 | 2222222222 | 2222 | |
| VOSTOK | VOS | | | | | | | 22 | 22 2222222 | 2222222222 | 22 | |
| VYKHODNOY | VYK | | | | | | 6 | DDHZ22 | | | | |
| WATHEROO | WAT | | | 2 | 2222222222 | 2222222222 | 2222222222 | 222222222* | | | | |
| WHITESHELL | WHS | | | | | | | | | 111 | * | |
| WIEN-KOBENZL | WIK | | | | 2 | 2222222222 | 2222222222 | 2 | 22222 | 2222222222 | 2222222222 | 2222 |
| WILHELMSHAVEN | WLH | | 2222222522 | 22 | | 55 | | | | | | |
| WILKES | WIL | | | | | | | *22 | 2222222 | | | |
| WINGST | WNG | | | | | 2 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 2222 | |
| WITTEVEEN | WIT | | | | | 22 | 2222222222 | 2222222222 | 2222222222 | 2222222222 | 222 | |
| WUHAN | WHN | | | | | | | | | | 2222 | |
| WUSTROW | WUS | | D | | | | | | | | | |
| YAKUTSK | YAK | | | | 5 | *555225 | 5555555522 | 2222222222 | 2222222222 | 2222222222 | 222 | |
| YANOV | YNV | | | | | 2 | | | | | | |
| YELLOWKNIFE | YKC | | | | | | | | | 22211 | 1111 | |
| YUZHNO SAKHALINS | YSS | | | | | | 222DD | 25 | 2222222222 | 2222222222 | 2222222222 | 2222 |
| ZIKAWEI | ZKW | | 33333333* | | | | | | | | | |
| ZINSEN | ZIN | | | 2 | 222222222 | 2222222222 | 2222Q | | | | | |

1=XHZ 2=DHZ 3=DIH 4=DI 5=DH 6=DZ 7=IHZ 8=IH 9=IZ D=D ONLY
F=F ONLY H=H ONLY I=I ONLY Z=Z ONLY Q=HZ P=DIF R=DHF S=XYF T=DHX U= HZ
*=INCOMPLETE YEAR ?=UNKNOWN ELEMENTS

## SECTION III

The map of geomagnetic observatories and stations producing data held at the WDC's is reproduced here from UAG-86. It does not include sites from which only annual means are available. We caution against scaling site coordinates from the map or adding sites unless allowance is made for the logarithmic scale of changing latitude used in this projection.




* NUMBERED EUROPEAN OBSERVATORIES

| | |
|---|---|
| 1 | BELSK |
| 2 | BOCHUM |
| 3 | BUDKOV |
| 4 | CASTELLACCIO |
| 5 | COLLMBERG |
| 6 | DE BILT |
| 7 | FURSTENFELDBRUCK |
| 8 | GENOVA |
| 9 | GOTTINGEN |
| 10 | MONTE CAPELLINO |
| 11 | NAGYCENK |
| 12 | NIEMEGK |
| 13 | POTSDAM |
| 14 | PRUHONICE |
| 15 | ROBURENT |
| 16 | SEDDIN |
| 17 | WIEN-KOBENZL |
| 18 | WILHELMSHAVEN |
| 19 | WINGST |
| 20 | WITTEVEEN |

# WDC GEOMAGNETIC OBSERVATORY AND STATION MAP

PUBLISHED BY NATIONAL GEOPHYSICAL DATA CENTER

NOVEMBER 1982

MILLER'S MODIFIED MERCATOR PROJECTION

## SECTION IV

### CATALOG OF GEOMAGNETIC DATA HELD AT WDC-A, B2, C1's, OR C2's

Table 8a summarizes the observatory names and codes listed in Table 8b. This table is sequenced by observatory codes.

Table 8b contains the observatory names, international 3-letter codes, and geographic coordinates are consistent with those published in "IAGA News", December 1979. The coordinates are latitude and east longitude. Components measured at each observatory are either Declination (D), Horizontal (H), and Vertical (Z) or Geographic North (X), Geographic East (Y), and Vertical (Z). If local K indices were available for some months of the year, this is indicated by the letter "K". Availability of annual mean values are indicated by the letter "A" and Q indices by the letter "Q". For each type of geomagnetic data, there is shown a symbol indicating which World Data Center holds the data: A = WDC-A for STP(Boulder), B = WDC-B2 (Moscow), C = WDC-C2 for Geomagnetism (Kyoto), D = WDC-C1 (Copenhagen), E = WDC-C1 (Edinburgh), and I = WDDC (Bombay). The catalog does not contain sufficient detail to indicate when data are held for some months of a year by one WDC and for other months of the same year by another WDC.

Normal and rapid run magnetograms are usually archived on 35-mm microfilm but original magnetograms may also be retained in the archive. Hourly values "any medium" may include any or all of the formats in which hourly values are available, e.g. tables on microfilm, tables on paper, published in yearbooks and on magnetic tape. Hourly values "on tape" means specifically that the values exist in computer format on digital magnetic tape. High-resolution digital values (2.5-min or 1.0-min) are digital data either produced by digitizing analog magnetograms or originally recorded using digital magnetometer systems. The 1-minute data are indicated by an asterisk (*).

Table 8b reflects the data holdings in the World Data Centers B and C's as of January 1, 1985 and WDC-A as of April 1, 1985.

TABLE 8a SUMMARY OF OBSERVATORY NAMES AND CODES LISTED IN TABLE 8b

(SORTED BY OBSERVATORY CODE)

| CODE/NAME | CODE/NAME | CODE/NAME | CODE/NAME | CODE/NAME |
|---|---|---|---|---|
| AAA=ALMA ATA | ARC=ARCTOWSKI | BKK=BANGKOK | CBB=CAMBRIDGE BAY | CPS=CAPE SCHMIDT |
| AAE=ADDIS ABABA | ARE=CHARACATO | BLC=BAKER LAKE | CBI=CHICHIJIMA | CPY=CAPE PARRY |
| ABG=ALIBAG | ARK=ARKHANGELSK | BLT=BELOIT | CCL=CHICLAYO | CRC=CASTLE ROCK |
| ABK=ABISKO | ARS=ARTI | BNG=BANGUI | CCP=CEBU | CRP=CHIRIPA |
| ABN=ABINGER | ASH=ASHKHABAD | BOC=BOCHUM | CCS=CAPE CHELYUSKIN | CSR=CASPER |
| ADA=ADAK | ASO=ASO | BOD=BODO | CFI=CHESTERFIELD INL | CTE=CHATONNAYE |
| AGN=AGINCOURT | AVE=AVERROES | BOP=BOSSEKOP | CGH=CAPE GOOD HOPE | CTO=CAPE TOWN |
| AIA=ARGENTINE ISLAND | AVI=ARCTIC VILLAGE | BOU=BOULDER | CHR=CHRISTCHURCH | CTX=CHARCOT |
| AIF=ARCTIC ICE FLO | AWS=ANDREWS AFB | BOX=BOROK | CKA=CAPE KAMENNIY | CUS=CUZCO |
| ALE=ALERT | BAG=BAGUIO | BRS=BRISBANE | CLF=CHAMBON-LA-FORET | CWE=CAPE WELLEN |
| ALM=ALMERIA | BAL=BALDWIN | BRT=BURLINGTON | CLH=CHELTENHAM | CZA=CAPE ZHELANIA |
| AMD=AMDERMA | BDE=BIG DELTA | BRW=BARROW | CLI=CLIMAX | CZT=PORT ALFRED |
| AML=AMBERLEY | BDV=BUDKOV | BTI=BARTER ISLAND | CLL=COLLMBERG | DAL=DALLAS |
| AMS=MARTIN DE VIVIES | BEL=BELSK | BTV=BATAVIA | CMB=CHIMBOTE | DAV=DAVAO |
| AMT=AMATSIA | BEY=BELIY ISLAND | BUZ=BUDAKESZI | CMO=COLLEGE | DBN=DE BILT |
| AMU=ANCHORAGE | BFE=BRORFELDE | BYR=BYRD STATION | CNH=CHANGCHUN | DIK=DIXON ISLAND |
| ANN=ANNAMALAINAGAR | BIN=BINZA | CAI=CAMPBELL ISLAND | COI=COIMBRA | DLR=DEL RIO |
| ANO=ANTIPOLO | BJI=BEIJING | CAN=CANBERRA | COP=COPENHAGEN | DOB=DOMBAS |
| API=APIA | BJN=BEAR ISLAND | CAO=CASTELLACCIO | CPA=CHA PA | DOU=DOURBES |
| AQU=L AQUILA | BKC=BACK | CAX=CARROLLTON | CPI=CAPRI | DRS=DAR ES SALAAM |

(Table 8a continued)

| CODE/NAME | CODE/NAME | CODE/NAME | CODE/NAME | CODE/NAME |
|---|---|---|---|---|
| DRV=DUMONT DURVILLE | IVA=IVALO | MCQ=MACQUARIE ISLAND | PAI=PALMYRA ISLAND | TEV=TEVRIZ |
| EBR=EBRO | IVI=IVIGTUT | MDY=MIDWAY | PCU=PRICE | TFS=TBILISI |
| EGS=EIGHTS | JAI=JAIPUR | MEA=MEANOOK | PEB=PELLY BAY | THL=THULE |
| EIC=EASTER ISLAND | JOP=JOHNSON POINT | MEV=MELVILLE AFB | PEG=PENDELI | THU=THULE AFB |
| EKP=ESKIMO POINT | JRV=JARVIS ISLAND | MFP=MOCA | PET=PETROPAVLOVSK | THY=TIHANY |
| ELI=ELIZABETHVILLE | JUL=JULIANEHAAB | MGD=MAGADAN | PIL=PILAR | TIK=TIXIE BAY |
| ENB=EIELSON AFB | KAK=KAKIOKA | MGS=MAGALLANES | PIO=PIONERSKAYA | TKH=TIKHAYA BAY |
| ENK=ENKOPING | KGD=KARAGANDA | MIR=MIRNY | PLS=PLAISANCE | TKT=TASHKENT |
| EPN=ESPANOLA | KGL=PORT-AUX-FRANCAI | MIZ=MIZUSAWA | PMG=PORT MORESBY | TLK=TALKEETNA |
| ESK=ESKDALEMUIR | KHB=KHABAROVSK | MJR=MAJURO | PNN=PENANG | TMB=TAMBEY |
| ETT=ETTAYAPURAM | KHS=KHARASAVEY | MKL=MALIYE KARMAKULY | POD=P. TUNGUSKA | TMK=TOMSK |
| EUS=EUSEBIO | KIR=KIRUNA | MLT=MISALLAT | POL=POLA | TMP=THOMPSON |
| EYR=EYREWELL | KIV=KIEV | MMB=MEMAMBETSU | POT=POTSDAM | TNG=TANGERANG |
| FAN=FANNING | KND=KANDALAKSHA | MMK=MURMANSK | PPT=PAMATAI | TOK=TOKYO |
| FCC=FORT CHURCHILL | KNG=KALININGRAD | MNK=MINSK | PRU=PRUHONICE | TOL=TOLEDO |
| FRA=FORT RAE | KNT=KONTAGORA | MOD=MODIIM | PTS=PETSAMO | TOO=TOOLANGI |
| FRD=FREDERICKSBURG | KNY=KANOYA | MOG=MOGADISCIO | PTU=PLATEAU | TRD=TRIVANDRUM |
| FSM=FORT SMITH | KNZ=KANOZAN | MOL=MOLODEZHNAYA | QUE=QUETTA | TRO=TROMSO |
| FSP=FORT SIMPSON | KOD=KODAIKANAL | MOS=MOSCOW | RBD=ROI BAUDOUIN | TRW=TRELEW |
| FTN=FREETOWN | KOR=KOROR | MRI=MAURITIUS | RDJ=RIO DE JANEIRO | TSU=TSUMEB |
| FUQ=FUQUENE | KOT=KOTZEBUE | MRN=MARION ISLAND | RES=RESOLUTE BAY | TTB=TATUOCA |
| FUR=FURSTENFELDBRUCK | KSA=KSARA | MUB=MURCHISON BAY | RIT=RANKIN INLET | TUC=TUCSON |
| FYU=FORT YUKON | KTG=KAP TOBIN | MUT=MUNTINLUPA | ROB=ROBURENT | TUL=TULSA |
| GCK=GROCKA | KUM=KUMASI | MWC=MT WILSON | RSV=RUDE SKOV | UBA=ULAN BATOR |
| GDH=GODHAVN | KUY=KUYPER | NAI=NAIROBI | SAB=SABHAWALA | UGT=UGUT |
| GEN=GENOVA | KVA=KARAVIA | NAL=NEW AALESUND | SAH=SACHS HARBOUR | UJJ=UJJAIN |
| GIM=GILLAM | KZA=KZIL-AGACH | NAQ=NARSSARSSUAQ | SBA=SCOTT BASE | UKH=UKHTA |
| GJO=GJOAHAVN | KZN=KAZAN | NCK=NAGYCENK | SCO=SCORESBYSUND | VAL=VALENTIA |
| GLL=GLENLEA | LAA=LITTLE AMERICA | NDA=NYDA | SED=SEDDIN | VIC=VICTORIA |
| GNA=GNANGARA | LAS=LAS ACACIAS | NEW=NEWPORT | SEO=SEOUL | VLA=VLADIVOSTOK |
| GRM=GRAHAMSTOWN | LAU=LAUDER | NGK=NIEMEGK | SEY=SEYKHA | VLJ=VAL JOYEUX |
| GRW=GREENWICH | LDV=LEADVILLE | NHO=NORWAY HOUSE | SFS=SAN FERNANDO | VOS=VOSTOK |
| GTT=GOTTINGEN | LEN=LENINGRADSKAYA | NKK=NOVOKAZALINSK | SGE=SOUTH GEORGIA | VQS=VIEQUES |
| GUA=GUAM | LER=LERWICK | NMP=NAMPULA | SIM=SIMFEROPOL | VSS=VASSOURAS |
| GVD=GONZALES VIDELA | LGR=LOGRONO | NMT=NUMTO | SIT=SITKA | WAT=WATHEROO |
| GWC=GREAT WHALE R. | LKP=LUKIAPANG | NOK=NORILSK | SJG=SAN JUAN | WES=WESTON |
| GZH=GUANGZHOU | LMD=LA MADDALENA | NOR=NORUSUND | SKT=SUKKERTOPPEN | WHN=WUHAN |
| HAD=HARTLAND | LMM=MAPUTO | NOW=NORMAN WELLS | SLU=SLUTZK | WHS=WHITESHELL |
| HBA=HALLEY BAY | LNN=LENINGRAD | NPF=NORTH POLE 6 | SMG=SAO MIGUEL | WIK=WIEN-KOBENZL |
| HBK=HARTEBEESTHOEK | LNP=LUNPING | NPG=NORTH POLE 7 | SNA=SANAE | WIL=WILKES |
| HEA=HEALY | LOB=LORING AFB | NPH=NORTH POLE 8 | SNJ=COSTA RICA | WIT=WITTEVEEN |
| HER=HERMANUS | LOV=LOVO | NPJ=NORTH POLE 10 | SOD=SODANKYLA | WKE=WAKE ISLAND |
| HII=HEARD ISLAND | LOZ=LOVOZERO | NPL=NORTH POLE 12 | SPA=SOUTH POLE | WLH=WILHELMSHAVEN |
| HIS=HEISS ISLAND | LPB=LA PAZ | NPM=NORTH POLE 13 | SPB=SPITZBERGEN | WMQ=URUMQI |
| HKC=HONG KONG | LQA=LA QUIACA | NRD=NORD | SRE=SREDNIKAN | WNG=WINGST |
| HLL=CAPE HALLETT | LRV=LEIRVOGUR | NRW=NORTHWAY | SSH=SHESHAN | WNP=WINNIPEG |
| HLP=HEL | LUA=LUANDA | NSM=NITSANIM | SSO=SIMOSATO | YAK=YAKUTSK |
| HLW=HELWAN | LVV=LVOV | NTS=NANTES | STJ=ST JOHNS | YAU=YAUCA |
| HNA=HOLLANDIA | LWI=LWIRO | NUR=NURMIJARVI | STO=STONYHURST | YKC=YELLOWKNIFE |
| HON=HONOLULU | LYN=LYNN LAKE | NVL=NOVOLAZAREVSKAYA | SUA=SURLARI | YSS=YUZHNO SAKHALIN |
| HRB=HURBANOVO | LYS=LYCKSELE | NVS=NOVOSIBIRSK | SVD=SVERDLOVSK | ZAR=ZARIA |
| HTY=HATIZYO | LZH=LANZHOU | NWS=NORWAY STATION | SWI=SWIDER | ZKW=ZIKAWEI |
| HUA=HUANCAYO | LZV=LAZAREV | OAS=OASIS | SYO=SYOWA STATION | |
| HVN=HAVANA | MAB=MANHAY | ODE=ODESSA | TAH=TAHITI | |
| HYB=HYDERABAD | MAN=MANILA | OGY=O GYALLA | TAL=TALARA | |
| IBD=IBADAN | MAW=MAWSON | ONW=ONAGAWA | TAM=TAMANRASSET | |
| INK=INUVIK | MBC=MOULD BAY | ORC=ORCADAS DEL SUR | TAN=TANANARIVE | |
| IRT=IRKUTSK | MBO=M BOUR | OTT=OTTAWA | TEH=TEHRAN | |
| ISK=ISTANBUL-KANDILL | MCM=MCMURDO | PAB=PARAMARIBO | TEN=CANARIAS | |
| ISL=ISLAND LAKE | MCP=MONTE CAPELLINO | PAG=PANAGYURISHTE | TEO=TEOLOYUCAN | |

TABLE 8b

## CATALOG LISTING OF ANALOG--DIGITAL GEOMAGNETIC DATA

WORLD DATA CENTER A=BOULDER B=MOSCOW C=KYOTO D=COPENHAGEN E=EDINBURGH I=BOMBAY

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABINGER | D 1925 | A | | | | | | I FMAMJ JASOND | | | | |
| ABN | D 1926 | A | A | JFMAMJ SO | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| (051.19 359.61) | D 1927 | A | A | J MAM JA O D | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1928 | A | A | M M J SO | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1929 | A | A | FM JA ON | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1930 | A | A | FM MJ J SOND | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1931 | A | A | F J J O | | | A | E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1932 | A | A | J M M A O | | | A C | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1933 | A | A | AM AS | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1934 | A | A | F J S D | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1935 | A | A | J MAMJ J SO | | | A | E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1936 | A | A | A J ON | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1937 | A | A | FMAM ASO | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1938 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1939 | A | A | FMAM JA O | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1940 | KA | A | J MAMJ J SON | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1941 | KA | A | M J JASO D | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1942 | KA | A | FMA ON | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1943 | KA | A | J MAM ASOND | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1944 | KA | A | FMA D | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1945 | KA | A | J M O D | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1946 | KA | A | FMAMJ J S ND | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1947 | KA | A | MAM AS ND | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1948 | KA | A | M A O | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1949 | KA | A | J M SOND | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1950 | KA | A | JFM J ASOND | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1951 | KA | A | FMA J J SO | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1952 | KA | A | JFMAMJ JASOND | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1953 | KA | A | JFMAMJ JASOND | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1954 | KA | A | JFMAMJ JASOND | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1955 | KA | A | JFMAMJ JASOND | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1956 | KA | A | JFMAMJ JASOND | | | A C | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1957 | KA | BC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| ABISKO | D 1967 | A | BCD | AM | | | | | | | | |
| ABK | D 1968 | A | ABCD | JFMAMJ JASOND | | | A | DE JFMAMJ JASOND | AB | EI JFMAMJ JASOND | A | JFMAMJ JASOND |
| (068.36 18.82) | D 1969 | A | ABCD | JFMAMJ JASOND | | | A | DE JFMAMJ JASOND | AB | EI JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1970 | A | ABCD | JFMAMJ JASOND | | | A | DE JFMAMJ JASOND | AB | EI JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1971 | A | ABCD | JFMAMJ JASOND | | | A | DE JFMAMJ JASOND | AB | E JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1972 | A | ABCD | JFMAMJ JASOND | | | A | DE JFMAMJ JASOND | AB | E JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1973 | A | ABCD | JFMAMJ JASOND | | | AB | DE JFMAMJ JASOND | AB | E JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1974 | A | ABCD | JFMAMJ JASOND | | | A | DE JFMAMJ JASOND | AB | E JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1975 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1976 | A | ABCD | JFMAMJ JASOND | | | A | JFMA | A | JFMA | A | JFMA * |
| | D 1977 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1980 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1981 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1982 | A | ABCD | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABISKO | D 1983 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| ABK | D 1984 | | ABCD | JFMAMJ JAS | | | | | | | | |
| (068.36 18.82) | | | | | | | | | | | | |
| ADAK | D 1964 | A | ABCD | JASOND | | | | | | | | |
| ADA | D 1965 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| (051.87 183.36) | D 1966 | A | AB | J | | | | | | | | |
| ADDIS ABABA | D 1958 | KA | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| AAE | D 1959 | KA | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| (009.03 38.77) | D 1960 | KA | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | JFMAMJ JASOND |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | | A EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | JFMAMJ JASOND |
| | D 1962 | A | ABCD | JFMAMJ JASOND | | | | A EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | JFMAMJ JASOND |
| | D 1963 | A | ABCD | JFMAMJ JASOND | | | | A EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | JFMAMJ JASOND |
| | D 1964 | A | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB | EI JFMAMJ JASOND | A | JASOND |
| | D 1965 | A | ABCD | JFMAMJ JASOND | | | | A E JFMAMJ JASOND | AB | E JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | A | A | JFMAMJ JASOND | | | | AB E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1967 | A | A | JFMAMJ JASOND | | | | AB E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1968 | A | A | JFMAMJ JASOND | | | | AB JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1969 | A | ABCD | JFMAMJ JASOND | | | | AB JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1970 | A | ABCD | JFMAMJ JASOND | | | | AB JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1971 | A | ABCD | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1972 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1973 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1974 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1975 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1976 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1977 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1978 | A | A | JF OND | | | | A JFMAMJ JASOND | | | | |
| | D 1979 | A | A | JFMA OND | | | | A JFMAMJ JASOND | | | | |
| | D 1980 | A | A | JFMAMJ J SOND | | | | A JFMAMJ JASOND | | | | |
| AGINCOURT | D 1908 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| AGN | D 1909 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| (043.78 280.73) | D 1910 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1911 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1912 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1913 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1914 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1915 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1916 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1917 | A | A | MJ J | | | | | | | | |
| | D 1918 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1919 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1920 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1921 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1922 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1923 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1924 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1925 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1926 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1927 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1928 | A | A | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AGINCOURT | D 1929 | A | A | JFMAMJ JASOND | | | | | | | | |
| AGN | D 1930 | A | A | JFMAMJ JASOND | | | | | | | | |
| (043.78 280.73) | D 1931 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1932 | A | A | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1933 | A | A | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1934 | A | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1935 | A | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1936 | A | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1937 | A | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1938 | A | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1939 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1940 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1941 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1942 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1943 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1944 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1945 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1946 | KA | A | JFM | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1947 | KA | A | JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1948 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1949 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1950 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1951 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1952 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1953 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1954 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1955 | KA | A | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D 1956 | KA | A | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D 1957 | KA | ABCD | JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1969 | KA | ABCD | JFM | | | ABCDEI | JFMAMJ JASOND | AB E | JFM | | |
| ALERT | X 1961 | A | ABCD | ND | | | ABCD I | JFMAMJ JASOND | | | | |
| ALE | X 1962 | A | AB | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| (082.50 297.50) | X 1963 | A | ABCD | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | X 1964 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | AB | A JASOND |
| | X 1965 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | X 1966 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | X 1967 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | AM ASOND |
| | X 1968 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | AB | JFMAMJ JA |
| | X 1969 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JAS |
| | X 1970 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | M |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALERT | X | 1971 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| ALE | X | 1972 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (082.50 297.50) | X | 1973 | A | ABCD | JFMAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| | X | 1974 | A | ABCD | JFMAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| | X | 1975 | A | ABCD | J MAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| | X | 1976 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | X | 1977 | A | ABCD | JFMAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| | X | 1978 | A | ABCD | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| | X | 1979 | A | ABCD | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1980 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1981 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1982 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1983 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1984 | | ABCD | JFMAMJ JAS | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| ALIBAG | D | 1921 | A | A | M M S N | | | A | JFMAMJ JASOND | | | | |
| ABG | D | 1922 | A | A | J M M SO | | | A | JFMAMJ JASOND | | | | |
| (018.64 72.87) | D | 1923 | A | A | M J SO | | | A | JFMAMJ JASOND | | | | |
| | D | 1924 | A | A | J MJ SO | | | A | JFMAMJ JASOND | | | | |
| | D | 1925 | A | A | MJ ASO | | | A I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1926 | A | A | JFMA J SO | | | A I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1927 | A | A | A J JA O D | | | A I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1928 | A | A | M M J O | | | A I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1929 | A | A | FM J ON | | | A I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1930 | A | A | F J SO D | | | A I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1931 | A | A | F J O | | | A I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1932 | A | A | J M M A | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1933 | A | A | F AM AS | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1934 | A | A | F J S D | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1935 | A | A | M M J SO | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1936 | A | A | A J ON | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1937 | A | A | A SO | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1938 | A | A | J AM | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1939 | A | A | F A A O | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1940 | KA | A | J MA J | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1941 | KA | A | FM JAS | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1942 | KA | A | FM O | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1943 | KA | A | F AS | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1944 | KA | A | A D | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1945 | KA | A | D | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1946 | KA | | | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1947 | KA | | | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1948 | KA | | | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1949 | KA | | | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1950 | KA | | | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1951 | KA | | I JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1952 | KA | | I JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1953 | KA | | I JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1954 | KA | | I JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1955 | KA | | I JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1956 | KA | | I JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1957 | KA | ABCD | I JFMAMJ JASOND | AB | JASOND | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALIBAG | D 1958 | KA | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| ABG | D 1959 | KA | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| (018.64 72.87) | D 1960 | KA | I | JFMAMJ JASOND | AB | | A I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1961 | KA | I | JFMAMJ JASOND | AB | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1962 | KA | I | JFMAMJ JASOND | AB | | A CD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A CD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1965 | KA | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | M |
| | D 1967 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1968 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1969 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1970 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1971 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1972 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1973 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1974 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D 1977 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D 1978 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D 1979 | KA | ABCD I | JFMAMJ JASOND | | | B D I | JFMAMJ JASOND | | | | |
| | D 1980 | KA | I | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | I | JFMAMJ JASOND | | | | | | | | |
| | D 1982 | KA | I | JFMAMJ JASOND | | | | | | | | |
| | D 1983 | KA | I | JFMAMJ JASOND | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| | D 1985 | K | | | | | | | | | | |
| ALMA ATA | D 1963 | A | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| AAA | D 1964 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| (043.25 76.92) | D 1965 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1966 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1967 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1968 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1969 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1970 | KA | ABC | JFM | | | ABC | JFM | | | | |
| | D 1971 | KA | BC | JFMAMJ JA | | | BC | JFMAMJ JA | | | | |
| | D 1972 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1983 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1984 | K | ABCD | JFMAMJ JAS | | | ABCD | JFMAMJ JAS | | | | |
| ALMERIA | D 1955 | A | | | | | A C | JFMAMJ JASOND | | | | |
| ALM | | | | | | | | | | | | |
| (036.85 357.54) | | | | | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALMERIA | D 1956 | A | | | | | A C | JFMAMJ JASOND | | | | |
| ALM | D 1957 | A | ABCD | JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (036.85 357.54) | D 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1959 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1963 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB M | | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1983 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1984 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1985 | K | | | | | | | | | | |
| AMATSIA | D 1975 | | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| AMT | D 1976 | A | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| (031.55 34.92) | D 1977 | A | | | | | A D | JFMAMJ JASOND | | | | |
| | D 1978 | A | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1979 | A | A | FMA J J ND | | | A D | JFMAMJ J ND | | | | |
| | D 1980 | A | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1981 | A | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1982 | | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1983 | | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| AMBERLEY | D 1929 | A | | | | | A I | JFMAMJ JASOND | | | | |
| AML | D 1930 | A | | | | | A I | JFMAMJ JASOND | | | | |
| (-43.15 172.72) | D 1931 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1932 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1933 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1934 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1935 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1936 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1937 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1938 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1939 | KA | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1940 | KA | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AMBERLEY | D | 1941 | KA | | | | | C | | | | | |
| AML | D | 1942 | KA | | | | | C | | | | | |
| (-43.15 172.72) | D | 1943 | KA | | | | | C | | | | | |
| | D | 1944 | KA | | | | | C | | | | | |
| | D | 1945 | KA | | | | | C | | | | | |
| | D | 1946 | KA | | | | | | I JFMAMJ JASOND | | I JFMAMJ JASOND | | |
| | D | 1947 | KA | | | | | | I JFMAMJ JASOND | | I JFMAMJ JASOND | | |
| | D | 1948 | KA | | | | | A C | I JFMAMJ JASOND | | I JFMAMJ JASOND | | |
| | D | 1949 | KA | | | | | A C | I JFMAMJ JASOND | | I JFMAMJ JASOND | | |
| | D | 1950 | KA | | | | | A C | I JFMAMJ JASOND | | I JFMAMJ JASOND | | |
| | D | 1951 | KA | | | | | A C | I JFMAMJ JASOND | | | | |
| | D | 1952 | KA | | | | | A | I JFMAMJ JASOND | | | | |
| | D | 1953 | KA | | | | | A | I JFMAMJ JASOND | | | | |
| | D | 1954 | KA | | | | | A | I JFMAMJ JASOND | | | | |
| | D | 1955 | KA | | | | | A | I JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | E SOND | | |
| | D | 1959 | KA | AB | JFMAMJ JASOND | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1960 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1961 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1962 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1963 | KA | | | | | ABCDEI | JFMAMJ JASOND | AB | E JFMAMJ JASOND | A | JFMAMJ JA |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB | E AM JASON | A | M JASON |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1966 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | X | 1976 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | X | 1977 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | X | 1982 | | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| AMDERMA | D | 1973 | | ABCD | ND | | | | | | | | |
| AMD | D | 1974 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| (069.47 061.42) | D | 1975 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| ANCHORAGE | D | 1957 | A | ABCD | AMJ JASOND | | | ABCDE | JASOND | AB | E JASOND | | |
| AMU | D | 1958 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| (061.24 210.13) | D | 1959 | | ABCD | J | | | | | AB | JFMAMJ JASOND | | |
| ANDREWS AFB | D | 1972 | | | | ABC | ASOND | | | | | | |
| AWS | | | | | | | | | | | | | |
| (038.82 283.13) | | | | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANNAMALAINAGAR | D | 1958 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| ANN | D | 1959 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| (011.37 79.68) | D | 1960 | KA | I | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1961 | KA | I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1962 | KA | I | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD I | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD I | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD I | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1967 | KA | ABCD I | JFMAMJ JASOND | | | A CDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | SO |
| | D | 1968 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1969 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1970 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1973 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1974 | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1975 | A | A CD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1976 | A | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1977 | A | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1978 | A | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1979 | A | ABCD I | JFMAMJ JASOND | | | B D I | JFMAMJ JASOND | | | | |
| | D | 1980 | A | I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1981 | A | I | JFMAMJ JASOND | | | | | | | | |
| | D | 1982 | A | I | JFMAMJ JASOND | | | | | | | | |
| | D | 1983 | | I | JFMAMJ JASOND | | | | | | | | |
| ANTIPOLO | D | 1911 | A | | | | | A | JFMAMJ JASOND | | | | |
| ANO | D | 1912 | A | | | | | A | JFMAMJ JASOND | | | | |
| (014.60 121.17) | D | 1913 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1914 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1915 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1916 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1917 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1918 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1919 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1920 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1921 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1922 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1923 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1924 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1925 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1926 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1927 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1928 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1929 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1930 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1931 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1932 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1933 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1934 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1935 | A | | | | | A | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS WDC | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ON TAPE WDC | 2.5-MINUTE 1.0-MINUTE(*) WDC |
|---|---|---|---|---|---|---|---|
| ANTIPOLO | D 1936 | A | | | A JFMAMJ JASOND | | |
| ANO | D 1937 | A | | | | | |
| (014.60 121.17) | D 1938 | A | | | A JFMAMJ JASOND | | |
| APIA | D 1905 | A | | | A I JFMAMJ JASOND | | |
| API | D 1906 | A | | | A I JFMAMJ JASOND | | |
| (-13.81 188.23) | D 1907 | A | | | A I JFMAMJ JASOND | | |
| | D 1908 | A | | | A I JFMAMJ JASOND | | |
| | D 1909 | A | | | A I JFMAMJ JASOND | | |
| | D 1910 | A | | | A I JFMAMJ JASOND | | |
| | D 1911 | A | | | A I JFMAMJ JASOND | | |
| | D 1912 | A | | | | | |
| | D 1913 | A | | | | | |
| | D 1914 | A | | | | | |
| | D 1915 | A | | | | | |
| | D 1916 | A | | | | | |
| | D 1917 | A | | | | | |
| | D 1918 | A | | | | | |
| | D 1919 | A | | | | | |
| | D 1920 | A | | | | | |
| | D 1921 | A | | | A I JFMAMJ JASOND | | |
| | D 1922 | A | | | A I JFMAMJ JASOND | | |
| | D 1923 | A | | | A I JFMAMJ JASOND | | |
| | D 1924 | A | | | A I JFMAMJ JASOND | | |
| | D 1925 | A | | | A I JFMAMJ JASOND | | |
| | D 1926 | A | | | A I JFMAMJ JASOND | | |
| | D 1927 | A | | | A I JFMAMJ JASOND | | |
| | D 1928 | A | | | A I JFMAMJ JASOND | | |
| | D 1929 | A | | | A I JFMAMJ JASOND | | |
| | D 1930 | A | | | A I JFMAMJ JASOND | | |
| | D 1931 | A | | | A I JFMAMJ JASOND | | |
| | D 1932 | A | | | A C I JFMAMJ JASOND | | |
| | D 1933 | A | | | A C I JFMAMJ JASOND | | |
| | D 1934 | A | | | A I JFMAMJ JASOND | | |
| | D 1935 | A | | | A C I JFMAMJ JASOND | | |
| | D 1936 | A | | | A C I JFMAMJ JASOND | | |
| | D 1937 | A | | | A I JFMAMJ JASOND | | |
| | D 1938 | A | | | A I JFMAMJ JASOND | | |
| | D 1939 | KA | | | A I JFMAMJ JASOND | | |
| | D 1940 | KA | | | A I JFMAMJ JASOND | | |
| | D 1941 | KA | | | A C I JFMAMJ JASOND | | |
| | D 1942 | KA | | | A I JFMAMJ JASOND | | |
| | D 1943 | KA | | | A C I JFMAMJ JASOND | | |
| | D 1944 | KA | | | A C I JFMAMJ JASOND | | |
| | D 1945 | KA | | | A C I JFMAMJ JASOND | | |
| | D 1946 | KA | | | A I JFMAMJ JASOND | | |
| | D 1947 | KA | | | A I JFMAMJ JASOND | | |
| | D 1948 | KA | | | A C I JFMAMJ JASOND | | |
| | D 1949 | KA | | | A C I JFMAMJ JASOND | | |
| | D 1950 | KA | | | A C I JFMAMJ JASOND | | |
| | D 1951 | KA | | | A C I JFMAMJ JASOND | | |
| | D 1952 | KA | | | A I JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY | MEDIUM | WDC | HOURLY VALUES ON | TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APIA | D 1953 | KA | | | | | A | I | JFMAMJ JASOND | | | | | |
| API | D 1954 | KA | | | | | A | I | JFMAMJ JASOND | | | | | |
| (-13.81 188.23) | D 1955 | KA | | | | | A | I | JFMAMJ JASOND | | | | | |
| | D 1956 | KA | | | | | A | I | JFMAMJ JASOND | | | | | |
| | D 1957 | KA | ABCD | JASOND | ABC | JASOND | ABCDEI | | JFMAMJ JASOND | AB E | | JASOND | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | I | JFMAMJ JASOND | AB | JFMAMJ | JASOND | | |
| | D 1959 | A | | | | | ABCD | I | JFMAMJ JASOND | | | | | |
| | D 1960 | A | | | | | ABCD | I | JFMAMJ JASOND | | | | | |
| | D 1961 | A | | | | | ABCDEI | | JFMAMJ JASOND | AB E | JFMAMJ | JASOND | | |
| | D 1962 | A | | | | | ABCD | I | JFMAMJ JASOND | | | | | |
| | D 1963 | A | AB | JFMAMJ JASOND | | | ABCDEI | | JFMAMJ JASOND | AB E | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | | JFMAMJ JASOND | AB E | JFMAMJ | JASOND | A | JFMAMJ |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | | JFMAMJ JASOND | AB E | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D 1966 | A | | | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1967 | A | | | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1968 | A | ABCD | JFMAMJ JASOND | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1969 | A | | | | | ABC | I | JFMAMJ JASOND | I | J | JAS | | |
| | D 1970 | A | ABCD | JFMAMJ JASOND | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1971 | A | ABCD | JFMAMJ JASOND | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1972 | A | A | JFMAMJ JASOND | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1973 | A | ABCD | JFMAMJ JASOND | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1974 | A | ABCD | JFMAMJ JASOND | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1975 | A | A | JFMAMJ JASOND | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1976 | A | | | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1977 | A | | | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1978 | A | ABCD | JFMAMJ JASOND | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1979 | A | | | | | ABC | | JFMAMJ JASOND | | | | | |
| | D 1980 | A | | | | | A C | | JFMAMJ JASOND | | | | | |
| ARCTIC ICE FLO | D 1957 | | ABCD | JASOND | | | | | | | | | | |
| AIF | D 1958 | | ABCD | JFMAMJ JASO | | | | | | | | | | |
| (083.53 193.05) | | | | | | | | | | | | | | |
| ARCTIC VILLAGE | D 1978 | | | | | | | | | | | | A | MAMJ JASOND* |
| AVI | D 1979 | | | | | | | | | | | | A | JFMAMJ JASOND* |
| (068.13 214.43) | D 1980 | | | | | | | | | | | | A | JFMAM A OND* |
| | D 1981 | | | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1982 | | | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1983 | | | | | | | | | | | | A | JFMAMJ JASOND* |
| ARCTOWSKI | D 1978 | K | | | | | A | | AMJ JASOND | | | | | |
| ARC | D 1979 | | | | | | A | | JFMAMJ JASOND | | | | | |
| (-62.16 301.65) | | | | | | | | | | | | | | |
| ARGENTINE ISLAND | D 1957 | KA | ABCD | J JASOND | | | ABCDE | | JFMAMJ JASOND | AB E | | JFMAMJ JASOND | | |
| AIA | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | AB E | | JFMAMJ JASOND | | |
| (-65.25 295.74) | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | AB E | | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | AB E | | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | AB E | | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | AB E | | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | AB E | | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | AB E | | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | AB E | | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ARGENTINE ISLAND | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| AIA | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-65.25 295.74) | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1969 | A | A D | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1970 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1971 | A | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1972 | A | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1973 | A | AB | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1974 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1975 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1976 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1977 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1978 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1979 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1980 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1981 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1982 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | A C E | JFMAMJ JASOND | | |
| | D | 1983 | A | A CD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| ARKHANGELSK | D | 1969 | | BCD | JFMAMJ JASOND | | | | | | | | |
| ARK | D | 1970 | | BCD | JFMAMJ JASOND | | | | | | | | |
| (064.60 040.50) | D | 1971 | | BCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | | BCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | | ABCD | JFMA | | | ABCD | JFMA | | | | |
| | D | 1977 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | | ABCD | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1980 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | | ABCD | JFMAMJ JAS | | | ABCD | JFMAMJ JAS | | | | |
| ARTI | D | 1957 | K | | | | | | | | | | |
| ARS | D | 1958 | K | | | | | | | | | | |
| (056.43 58.57) | D | 1959 | K | | | | | | | | | | |
| | D | 1960 | K | | | | | | | | | | |
| | D | 1961 | K | | | | | | | | | | |
| | D | 1962 | K | | | | | | | | | | |
| | D | 1963 | K | | | | | | | | | | |
| | D | 1964 | K | | | | | | | | | | |
| | D | 1965 | K | | | | | | | | | | |
| | D | 1966 | K | | | | | | | | | | |
| | D | 1967 | K | | | | | | | | | | |
| | D | 1968 | K | | | | | | | | | | |
| | D | 1969 | K | | | | | | | | | | |
| | D | 1970 | K | | | | | | | | | | |
| | D | 1971 | K | B | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | K | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | AB D | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ARTI | D | 1976 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| ARS | D | 1977 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| (056.43 58.57) | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | BCD | JFMAMJ JASOND | | | BCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | BCD | JFMAMJ JASOND | | | BCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | B D | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | B D | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | B D | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| | D | 1984 | | B D | JFMAMJ | | | B D | JFMAMJ | | | | |
| ASHKHABAD | D | 1958 | K | ABCD | SOND | BC | J JASOND | | | AB | JFMAMJ JASOND | | |
| ASH | D | 1959 | KA | ABCD | JFMAMJ JASOND | C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (037.95 58.11) | D | 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABC | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1970 | KA | ABCD | JFMAMJ | ABC | JFMAMJ | ABCD | JFMAMJ | | | | |
| | D | 1971 | K | | | | | | | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | | JFMAMJ | | | | JFMAMJ | | | | |
| ASO | D | 1932 | | | | | | C | ASOND | | | | |
| ASO | D | 1933 | | | | | | C | JFMAMJ JA | | | | |
| (032.88 131.01) | | | | | | | | | | | | | |
| | D | 1957 | K | ABCD | JASOND | | | ABCD | JASOND | | | | |
| | D | 1958 | A | ABCD | AMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1965 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| AVERROES | D | 1966 | | A | J J OND | | | | | | | | |
| AVE | D | 1967 | A | A | JFMAMJ JASOND | | | | | | | | |
| (033.30 352.59) | D | 1968 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1971 | KA | A | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AVERROES | D | 1972 | K | A | JFMAMJ JASOND | | | B | A | | | | |
| AVE | D | 1973 | | A | JFMAMJ JASOND | | | | | | | | |
| (033.30 352.59) | D | 1974 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | KA | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D | 1977 | | A | JFMAMJ JASOND | | | A D | JFM | | | | |
| | D | 1978 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1980 | | A | FM | | | | | | | | |
| BACK | D | 1977 | | | | | | | | | | A | N * |
| BKC | D | 1978 | | | | | | | | | | A | AMJ JASO * |
| (057.68 265.77) | D | 1979 | | | | | | | | | | A | FMAMJ JASOND* |
| | D | 1980 | | | | | | | | | | A | FMAMJ J * |
| BAGUIO | D | 1961 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| BAG | D | 1962 | | | | | | A | JFMAMJ JASOND | | | | |
| (016.42 120.60) | D | 1963 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1964 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | O | A | O |
| | D | 1965 | | ABCD | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | AB | M | A | M |
| | D | 1966 | | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | ASO D | A | ASO D |
| | D | 1967 | | ABCD | JFMAMJ JASOND | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JF AMJ |
| | D | 1968 | | ABCD | JFMAMJ JASOND | | | AB DE | JFMAMJ JASOND | AB E | JFMAMJ JASO | A | JASO |
| | D | 1969 | | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1970 | | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | D | 1971 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1973 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1975 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | | ABCD | JFMAMJ JASOND | B | SOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1978 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1979 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1980 | | A CD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1981 | | A D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D | 1982 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1983 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1984 | | A | JFMAMJ JASOND | | | | | | | | |
| BAKER LAKE | X | 1951 | KA | A | JFMAMJ JASOND | | | | | | | | |
| BLC | X | 1952 | KA | A | JFMAMJ JASOND | | | | | | | | |
| (064.33 263.97) | X | 1953 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | X | 1954 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | X | 1955 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | X | 1956 | A | A | JFMAMJ JASOND | | | | | | | | |
| | X | 1957 | A | ABCD | JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | X | 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | X | 1959 | A | ABCD | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | X | 1960 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | X | 1961 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | X | 1962 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | X | 1963 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | X | 1964 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | SOND |

| OBSERVATORY | COMP | YEAR | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BAKER LAKE | X | 1965 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| BLC | X | 1966 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JAS ND |
| (064.33 263.97) | X | 1967 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | AM ASOND |
| | X | 1968 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | MAMJ JASO |
| | X | 1969 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | J JAS |
| | X | 1970 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | M |
| | X | 1971 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | ND | A | ND* |
| | X | 1972 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1973 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1974 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1975 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1976 | A | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1977 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1978 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | X | 1979 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1980 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1981 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1982 | A | ABCD | JFMAMJ JASOND | | | A- | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1983 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1984 | | ABCD | JFMAMJ JAS | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| BALDWIN | D | 1901 | A | | | | | A | JFMAMJ JASOND | | | | |
| BAL | D | 1902 | A | | | | | A | JFMAMJ JASOND | | | | |
| (038.78 264.83) | D | 1903 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1904 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1905 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1906 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1907 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1908 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1909 | A | | | | | A | JFMAMJ JAS | | | | |
| BANGKOK | D | 1966 | | | | | | A | JFMAMJ JASOND | | | | |
| BKK | | | | | | | | | | | | | |
| (013.72 100.57) | | | | | | | | | | | | | |
| BANGUI | D | 1955 | A | | | | | A EI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| BNG | D | 1956 | A | | | | | A EI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| (004.44 18.57) | D | 1957 | KA | ABCD | JASOND | | | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ J | | | ABCDE | JFMAMJ J | A E | JFMAMJ J | | |
| | D | 1961 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | ASOND | A | ASOND |
| | D | 1962 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1963 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1964 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | ON |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | M ND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | AM ASO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JF AMJ |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JASO |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFM |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BANGUI | D 1973 | A | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| BNG | D 1974 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (004.44 18.57) | D 1975 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1979 | KA | A CD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1982 | KA | A CD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1983 | KA | A CD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | E | | | |
| | D 1984 | K | A CD | JFMAMJ JAS | | | A CDE | JFMAMJ JASOND | | | | |
| BARROW | D 1949 | A | A | OND | | | | | | | | |
| BRW | D 1950 | A | A | JFMAMJ JASOND | | | | | | | | |
| (071.30 203.25) | D 1951 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1952 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1953 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1954 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1955 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1956 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1957 | KA | ABCD | JFMAMJ JASOND | ABC | JASOND | ABCD | J JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCDE | JFMAMJ JASOND | AB EI | SOND | A | SOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | ABC JFMAMJ | JAS | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (071.32 203.38) | D 1975 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | MJ JASOND* |
| | D 1976 | A | AB D | JFMAMJ JASOND | | | AB DE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1977 | A | AB D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1978 | A | AB D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1979 | A | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1980 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1981 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1982 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1983 | | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| BARTER ISLAND | D 1957 | | ABCD | MJ JASOND | | | ABCD | MJ J SOND | | | | |
| BTI | D 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (070.13 216.02) | D 1959 | | ABCD | J | | | A | J | | | | |
| BATAVIA | D 1867 | | | | | | A | JASOND | | | | |
| BTV | | | | | | | | | | | | |
| ( -6.18 106.83) | | | | | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS WDC | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ON TAPE WDC | 2.5-MINUTE 1.0-MINUTE(*) WDC |
|---|---|---|---|---|---|---|---|
| BATAVIA | D 1868 | | | | A JFMAMJ JASOND | | |
| BTV | D 1869 | | | | A JFMAMJ JASOND | | |
| ( -6.18 106.83) | D 1870 | | | | A JFMAMJ | | |
| | D 1882 | | | | A JASOND | | |
| | D 1883 | | | | A JFMAMJ JASOND | | |
| | D 1884 | A | | | A JFMAMJ JASOND | | |
| | D 1885 | A | | | A JFMAMJ JASOND | | |
| | D 1886 | A | | | A JFMAMJ JASOND | | |
| | D 1887 | A | | | A JFMAMJ JASOND | | |
| | D 1888 | A | | | A JFMAMJ JASOND | | |
| | D 1889 | A | | | A JFMAMJ JASOND | | |
| | D 1890 | A | | | A JFMAMJ JASOND | | |
| | D 1891 | A | | | A JFMAMJ JASOND | | |
| | D 1892 | A | | | A JFMAMJ JASOND | | |
| | D 1893 | A | | | A JFMAMJ JASOND | | |
| | D 1894 | A | | | A JFMAMJ JASOND | | |
| | D 1895 | A | | | A JFMAMJ JASOND | | |
| | D 1896 | A | | | A JFMAMJ JASOND | | |
| | D 1897 | A | | | A JFMAMJ JASOND | | |
| | D 1898 | A | | | A JFMAMJ JASOND | | |
| | D 1899 | | | | A JFMAMJ JASOND | | |
| | D 1900 | | | | A JFMAMJ JASOND | | |
| | D 1901 | | | | A JFMAMJ JASOND | | |
| | D 1902 | A | | | A JFMAMJ JASOND | | |
| | D 1903 | A | | | A JFMAMJ JASOND | | |
| | D 1904 | A | | | A JFMAMJ JASOND | | |
| | D 1905 | A | | | A JFMAMJ JASOND | | |
| | D 1906 | A | | | A JFMAMJ JASOND | | |
| | D 1907 | A | | | A JFMAMJ JASOND | | |
| | D 1908 | A | | | A JFMAMJ JASOND | | |
| | D 1909 | A | | | A JFMAMJ JASOND | | |
| | D 1910 | A | | | A JFMAMJ JASOND | | |
| | D 1911 | A | | | A JFMAMJ JASOND | | |
| | D 1912 | A | | | A JFMAMJ JASOND | | |
| | D 1913 | A | | | A JFMAMJ JASOND | | |
| | D 1914 | A | | | A JFMAMJ JASOND | | |
| | D 1915 | A | | | A JFMAMJ JASOND | | |
| | D 1916 | A | | | A JFMAMJ JASOND | | |
| | D 1917 | A | | | A JFMAMJ JASOND | | |
| | D 1918 | A | | | A JFMAMJ JASOND | | |
| | D 1919 | A | | | A JFMAMJ JASOND | | |
| | D 1920 | A | | | A C JFMAMJ JASOND | | |
| | D 1921 | A | | | A JFMAMJ JASOND | | |
| | D 1922 | A | | | A C JFMAMJ JASOND | | |
| | D 1923 | A | | | A JFMAMJ JASOND | | |
| | D 1924 | A | | | A JFMAMJ JASOND | | |
| | D 1925 | A | | | A JFMAMJ JASOND | | |
| | D 1926 | A | | | A JFMAMJ JASOND | | |
| | D 1927 | A. | | | A JFMAMJ JASOND | | |
| | D 1928 | A | | | A JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BATAVIA | D 1929 | | | | | | A | JFMAMJ JASOND | | | | |
| BTV | D 1930 | | | | | | A | JFMAMJ JASOND | | | | |
| ( -6.18 106.83) | D 1931 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1932 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1933 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1934 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1935 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1936 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1937 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1938 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1939 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1940 | | | | | | A | JFMAMJ JASOND | | | | |
| BEAR ISLAND | D 1956 | A | | | | | C | JFMAMJ JASOND | | | | |
| BJN | D 1957 | KA | | | | | | | | | | |
| (074.50 19.20) | D 1958 | KA | | | | | | | | | | |
| | D 1959 | KA | | | | | | | | | | |
| | D 1960 | KA | | | | | | | | | | |
| | D 1961 | KA | | | | | | | | | | |
| | D 1962 | KA | | | | | | | | | | |
| | D 1963 | KA | | | | | | | | | | |
| | D 1964 | KA | | | | | | | | | | |
| | D 1965 | KA | | | | | | | | | | |
| | D 1974 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1975 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1977 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1980 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1981 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1982 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1983 | A | A CD | JFMAMJ JASOND | | | | | | | | |
| | D 1984 | | A CD | JFMAMJ JASOND | | | | | | | | |
| BEIJING | D 1957 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| BJI | D 1958 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| (040.04 116.18) | D 1959 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1963 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1964 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1965 | A | | | | | D | JFMAMJ JASOND | | | | |
| | D 1966 | A | | | | | D | JFMAMJ JASOND | | | | |
| | D 1967 | A | | | | | D | JFMAMJ JASOND | | | | |
| | D 1968 | A | | | | | D | JFMAMJ JASOND | | | | |
| | D 1969 | A | | | | | D | JFMAMJ JASOND | | | | |
| | D 1970 | A | | | | | D | JFMAMJ JASOND | | | | |
| | D 1971 | A | | | | | D | JFMAMJ JASOND | | | | |
| | D 1972 | A | | | | | D | JFMAMJ JASOND | | | | |
| | D 1973 | A | | | | | D | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BEIJING | D | 1974 | A | | | | | A D | JFMAMJ JASOND | | | | |
| BJI | D | 1975 | A | | | | | A D | JFMAMJ JASOND | | | | |
| (040.04 116.18) | D | 1976 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1977 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1978 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1979 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1980 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1981 | A | | | | | A C | JFMAMJ JASOND | | | | |
| BELIY ISLAND | D | 1972 | | B | MJ JASOND | | | | | | | | |
| BEY | D | 1973 | | ABCD | ND | | | | | | | | |
| (073.30 070.00) | D | 1974 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | | ABCD | JFMA J JASOND | | | | | | | | |
| | D | 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| BELOIT | D | 1957 | A | ABCD | JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JASOND | | |
| BLT | D | 1958 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (039.48 261.87) | D | 1959 | | ABCD | J | | | A | J | AB | JFMAMJ JASOND | | |
| BELSK | D | 1960 | KA | | | | | | | | | | |
| BEL | D | 1961 | KA | | | | | | | | | | |
| (051.84 20.79) | D | 1962 | KA | | | | | | | | | | |
| | D | 1963 | KA | | | | | | | | | | |
| | D | 1964 | KA | | | | | | | | | | |
| | D | 1965 | KA | | | | | | | | | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | AB D | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | AB | JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | AB | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1971 | KA | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1972 | KA | AB | JFMAMJ | | | ABC EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1973 | KA | AB | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | AB | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1975 | KA | | | | | A C I | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1976 | KA | | | | | A C I | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1977 | KA | | | | | A C I | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1978 | KA | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | | | | | AB | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| BIG DELTA | D | 1957 | A | ABCD | JASOND | ABC | JASOND | ABCDE | JASOND | AB E | JASOND | | |
| BDE | D | 1958 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (064.00 214.27) | D | 1959 | | ABCD | J | ABC | J | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| BINZA | D | 1954 | A | | | | | A | JFMAMJ JASOND | | | | |
| BIN | D | 1955 | A | | | | | A | JFMAMJ JASOND | | | | |
| ( -4.27 15.37) | D | 1956 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1957 | KA | | | | | | | | | | |
| | D | 1958 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BINZA | D | 1960 | KA | | | | | | | | | | |
| BIN | D | 1961 | KA | A | JFMAMJ JASOND | | | | | | | | |
| ( -4.27 15.37) | D | 1962 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1963 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1964 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1965 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1966 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1967 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | KA | AB D | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1971 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | K | | | | | | | | | | |
| | D | 1979 | K | | | | | | | | | | |
| BOCHUM | D | 1902 | A | | | | | A | JFMAMJ JASOND | | | | |
| BOC | D | 1903 | A | | | | | A | JFMAMJ JASOND | | | | |
| (051.49 7.23) | D | 1904 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1905 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1906 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1907 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1908 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1909 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1910 | A | | | | | A | JFMAMJ JASOND | | | | |
| BODO | D | 1932 | | | | | | C | SOND | | | | |
| BOD | D | 1933 | | | | | | C | JFMAMJ JA | | | | |
| (069.30 014.42) | | | | | | | | | | | | | |
| BOROK | D | 1957 | K | | | ABC | JFMA ASOND | | | | | | |
| BOX | D | 1958 | K | A | FMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| (058.03 38.97) | D | 1959 | K | A | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1960 | K | | | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1961 | K | A | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1962 | K | A | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1963 | K | A | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1964 | K | A | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1965 | K | A | JFMAMJ J | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1966 | K | A | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1968 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | | | | B | JASOND | | | | | | |
| | D | 1971 | | A | JFMAMJ JASOND | B | JFMAMJ JASOND | A | JFMAMJ JASOND | | | | |
| | D | 1976 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BOROK | D | 1978 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| BOX | D | 1979 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (058.03 38.97) | D | 1980 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | | BCD | JFMAMJ | | | BCD | JFMAMJ | | | | |
| BOSSEKOP | D | 1932 | | | | | | C | OND | | | | |
| BOP | D | 1933 | | | | | | C | JFMAMJ JA | | | | |
| (069.97 023.25) | | | | | | | | | | | | | |
| BOULDER | D | 1961 | | A | JFMAMJ JASOND | | | | | | | | |
| BOU | D | 1962 | | A | JFMAMJ JASOND | | | | | | | | |
| (040.14 254.76) | D | 1963 | K | ABCD | JFMAMJ JASOND | | | A CD | AMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | MJ JASOND | ABCD | JFMAMJ JASOND | A | J SOND | A | J JASOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1978 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | AMJ JASOND* |
| | D | 1979 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1980 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1981 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1982 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1983 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1984 | | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| BRISBANE | D | 1957 | K | | | | | | | | | | |
| BRS | D | 1958 | K | | | | | | | | | | |
| (-27.53 152.92) | D | 1959 | K | | | | | | | | | | |
| | D | 1960 | K | | | | | | | | | | |
| | D | 1961 | K | | | | | | | | | | |
| | D | 1962 | K | | | | | | | | | | |
| | D | 1963 | K | | | | | | | | | | |
| | D | 1964 | K | | | | | | | | | | |
| BRORFELDE | D | 1980 | A | | | | | AB D | JFMAMJ JASOND | | | | |
| BFE | | | | | | | | | | | | | |
| (055.63 11.67) | D | 1982 | | AB D | JFMAMJ JASOND | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | |
| BUDAKESZI | D | 1949 | A | | | | | A | JFMAMJ JASOND | | | | |
| BUZ | D | 1950 | A | | | | | A | JFMAMJ JASOND | | | | |
| (047.52 18.90) | | | | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BUDAKESZI | D | 1951 | A | | | | | A | JFMAMJ JASOND | | | | |
| BUZ | D | 1952 | A | | | | | A | JFMAMJ JASOND | | | | |
| (047.52 18.90) | D | 1953 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1954 | A | | | | | A | JFMAMJ JASOND | | | | |
| BUDKOV | D | 1957 | K | | | | | B | JFMAMJ JASOND | | | | |
| BDV | D | 1958 | K | C | JF | | | BC | JFMAMJ JASOND | | | | |
| (049.08 14.02) | D | 1959 | K | | | | | BC | JFMAMJ JASOND | | | | |
| | D | 1960 | K | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1961 | K | | | | | AB | JFMAMJ JASOND | | | | |
| | D | 1962 | K | | | | | AB | JFMAMJ JASOND | | | | |
| | D | 1963 | K | | | | | AB | JFMAMJ JASOND | | | | |
| | D | 1964 | K | | | | | AB | JFMAMJ JASOND | | | | |
| | D | 1965 | K | | | | | AB | JFMAMJ JASOND | | | | |
| | D | 1966 | K | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | | | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | | | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | | | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | | | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | | | | | B D | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | | | | | B D | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | A | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | A | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | A | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | A | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | A | JFMAMJ | | | A | JFMAMJ | | | | |
| | D | 1981 | KA | | | | | | | | | | |
| | D | 1982 | KA | | | | | | | | | | |
| | D | 1983 | K | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | |
| BURLINGTON | D | 1957 | | ABCD | J JASOND | | | ABCD | J JASOND | | | | |
| BRT | D | 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (039.38 257.73) | D | 1959 | | ABCD | J | | | ABCD | J | | | | |
| BYRD STATION | D | 1957 | KA | ABCD | JASOND | BC | D | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| BYR | D | 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-79.98 240.00) | D | 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-80.02 240.48) | D | 1963 | KA | AB | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | | AB D | JFMAMJ JASOND | A C | JFMAMJ JASOND | | | | | | |
| | D | 1967 | KA | AB D | JFMAMJ JASOND | A C | JFMAMJ JASOND | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | AB D | JFMAMJ JASOND | A C | JFMAMJ JASOND | A DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ |
| | D | 1969 | K | AB D | JFMAMJ JASOND | A C | JFMAMJ JASOND | | | | | | |
| | D | 1970 | K | AB D | JFMAMJ JASOND | A C | JFMAMJ JASOND | A MJ ND | | A MJ ND | | A MJ ND | |
| | D | 1971 | K | AB D | JFMAMJ JASO | A C | JFMAMJ JASO | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | NORMAL MAGNETOGRAMS WDC | | RAPID RUN MAGNETOGRAMS WDC | | HOURLY VALUES ANY MEDIUM WDC | | HOURLY VALUES ON TAPE WDC | | 2.5-MINUTE 1.0-MINUTE(*) WDC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CAMBRIDGE BAY | D | 1972 | A | ABCD | JASOND | | | ABCD | JFMAMJ JASOND | A | AMJ JASOND | A | AMJ JASOND* |
| CBB | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| (069.20 255.00) | D | 1974 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1975 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1979 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1980 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1981 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1982 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1983 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| | X | 1984 | | ABCD | JFMAMJ JAS | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| CAMPBELL ISLAND | D | 1979 | K | | | | | | | | | | |
| CAI | D | 1980 | K | | | | | | | | | | |
| (-52.50 169.20) | D | 1981 | K | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | |
| CANARIAS | D | 1961 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| TEN | D | 1962 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| (028.48 343.74) | D | 1963 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | J SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ J O |
| | D | 1966 | K | ABCD | JFMAM | | | ABCD | JFMAMJ JASOND | A | M | A | M |
| | D | 1967 | KA | A CD | M | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | K | ABCD | JFMAMJ JASOND | | | D | JFMAMJ JASOND | | | | |
| | D | 1982 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1983 | | A CD | JFMAMJ JASOND | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| CANBERRA | D | 1979 | KA | | | | | A | SOND | A | SOND | | |
| CAN | D | 1980 | KA | | | | | A | JFMAM | A | JFMAM | | |
| (-35.32 149.36) | D | 1981 | KA | | | | | | | | | | |
| | D | 1983 | KA | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | |
| CAPE CHELYUSKIN | D | 1955 | KA | | | | | | | | | | |
| CCS | | | | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CAPE CHELYUSKIN | D | 1956 | KA | | | | | | | | | | |
| CCS | D | 1957 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (077.72 104.28) | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | D | 1965 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | AB | JFMAMJ JASOND |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1981 | KA | A CD | JFMAMJ JASOND | | | | | | | | |
| | D | 1982 | KA | A CD | JFMAMJ JASOND | | | | | | | | |
| | D | 1983 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| CAPE GOOD HOPE | D | 1841 | A | | | | | A | AMJ JASOND | | | | |
| CGH | D | 1842 | A | | | | | A | JFMAMJ JASOND | | | | |
| (-33.93 018.48) | D | 1843 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1844 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1845 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1846 | A | | | | | A | JFMAMJ | | | | |
| CAPE HALLETT | D | 1957 | K | ABCD | JASOND | | | A | JASOND | | | | |
| HLL | D | 1958 | K | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| (-72.32 170.22) | D | 1959 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1960 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1961 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1962 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| CAPE KAMENNIY | D | 1973 | | ABCD | ND | | | | | | | | |
| CKA | D | 1974 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| (068.50 073.60) | D | 1975 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | | BCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | | AB D | JFMAMJ JASOND | | | | | | | | |
| CAPE PARRY | D | 1977 | | | | | | | | | | A | ND* |
| CPY | D | 1978 | | | | | | | | | | A | JFMAMJ JASOND* |
| (070.17 235.28) | D | 1979 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1980 | | | | | | | | | | A | JFMAMJ JASOND* |

| OBSERVATORY | COMP | YEAR | KAQ | NORMAL MAGNETOGRAMS WDC | | RAPID RUN MAGNETOGRAMS WDC | | HOURLY VALUES ANY MEDIUM WDC | | HOURLY VALUES ON TAPE WDC | | 2.5-MINUTE 1.0-MINUTE(*) WDC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CAPE PARRY | D | 1981 | | | | | | | | | | A | JFMAMJ JA OND* |
| CPY | D | 1982 | | | | | | | | | | A | JFMAMJ JASOND* |
| (070.17 235.28) | D | 1983 | | | | | | | | | | A | JFMAMJ JASOND* |
| CAPE SCHMIDT | D | 1967 | | AB | JASOND | | | | | | | | |
| CPS | D | 1968 | | AB | JASOND | | | | | | | | |
| (068.92 180.52) | D | 1973 | | B | JFMAMJ | | | | | | | | |
| CAPE TOWN | D | 1932 | | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| CTO | D | 1933 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| (-33.95 18.47) | D | 1934 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1935 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1936 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1937 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1938 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1939 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1940 | KA | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| CAPE WELLEN | D | 1952 | KA | | | | | | | | | | |
| CWE | D | 1953 | KA | | | | | | | | | | |
| (066.16 190.17) | D | 1954 | KA | | | | | | | | | | |
| | D | 1955 | KA | | | | | | | | | | |
| | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | 0 |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JASOND |
| | D | 1965 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1983 | K | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| CAPE ZHELANIA | D | 1974 | | ABCD | JF OND | | | | | | | | |
| CZA | D | 1975 | | B | JFMAMJ JASO | | | | | | | | |
| (077.00 068.60) | | | | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CAPE ZHELANIA | D | 1976 | | B | JFMAMJ JASO | | | | | | | | |
| CZA | | | | | | | | | | | | | |
| (077.00 068.60) | | | | | | | | | | | | | |
| CAPRI | D | 1957 | K | ABCD | JASOND | | | ABCD | JASOND | | | | |
| CPI | D | 1958 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (040.55 014.22) | D | 1959 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JA | | | | |
| | D | 1961 | | ABCD | FMAMJ JASOND | | | ABCD | FMAMJ JASOND | | | | |
| | D | 1962 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1965 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1966 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1967 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1968 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1970 | | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1971 | | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | | A D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | | A D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | | A | JFMAMJ | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | | | | | | ABCD | JFMAMJ JASOND | | | | |
| CARROLLTON | D | 1957 | | ABCD | JASOND | | | | | | | | |
| CAX | D | 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (039.37 266.47) | D | 1959 | | ABC | JF | | | AB | J | | | | |
| CASPER | D | 1957 | | ABCD | JASOND | | | ABCD | ASOND | | | | |
| CSR | D | 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD | JF AMJ JASON | | | | |
| (042.83 253.63) | D | 1959 | | AB D | JF | | | | | | | | |
| CASTELLACCIO | D | 1933 | A | | | | | A | JFMAMJ JASOND | | | | |
| CAO | D | 1934 | A | | | | | A | JFMAMJ JASOND | | | | |
| (044.43 8.93) | D | 1935 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1936 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1937 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1938 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1939 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1940 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1941 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1942 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1943 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1944 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1945 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1946 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1947 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1957 | A | AB D | JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1958 | A | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CASTELLACCIO | D | 1959 | A | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| CAO | D | 1960 | A | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| (044.43 8.93) | D | 1961 | A | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1962 | A | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| CASTLE ROCK | D | 1970 | A | | | | | A D | AMJ JASOND | A | AMJ JASOND | A | AMJ JASOND |
| CRC | D | 1971 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (037.24 237.87) | D | 1972 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1973 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1974 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND |
| CEBU | D | 1961 | | ABCD | JASOND | | | | | | | | |
| CCP | | | | | | | | | | | | | |
| (010.30 123.90) | | | | | | | | | | | | | |
| CHA PA | D | 1957 | A | ABCD | ASOND | | | ABCD | SOND | | | | |
| CPA | D | 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| (022.35 103.83) | D | 1959 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | A | | | | | | | | | | |
| | D | 1961 | A | | | | | B | JFMAMJ JASOND | | | | |
| | D | 1962 | A | | | | | B | JFMAMJ JASOND | | | | |
| | D | 1963 | A | | | | | B | JFMAMJ JASOND | | | | |
| | D | 1964 | A | | | | | I | JFMAMJ JASOND | | | | |
| | D | 1965 | A | | | | | I | JFMAMJ JASOND | | | | |
| | D | 1966 | A | | | | | B | JFMAMJ JASOND | | | | |
| | D | 1967 | A | | | | | B | JFMAMJ JASOND | | | | |
| CHAMBON-LA-FORET | D | 1936 | A | | | | | A | JFMAMJ JASOND | | | | |
| CLF | D | 1937 | A | | | | | A | JFMAMJ JASOND | | | | |
| (048.02 2.26) | D | 1938 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1939 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1940 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1941 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1942 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1943 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1944 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1945 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1946 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1947 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1948 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1949 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1950 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1951 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1952 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1953 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1954 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1955 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1957 | KA | ABCD | JFMAMJ JASOND | ABC | JASOND | AB D | JFMAMJ JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | AB D | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | AB D | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHAMBON-LA-FORET | D 1963 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| CLF | D 1964 | KA | ABCD | JFMAMJ JASOND | | | AB DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (048.02 2.26) | D 1965 | KA | ABCD | JFMAMJ JASOND | | | D | JFMAMJ JASOND | | | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | D | JFMAMJ JASOND | | | | |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | D | JFMAMJ JASOND | | | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1975 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | A | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1979 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | A | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1983 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| | D 1985 | K | | | | | | | | | | |
| CHANGCHUN | D 1980 | | | | | | A | JFMAMJ JASOND | | | | |
| CNH | | | | | | | | | | | | |
| (044.05 125.21) | | | | | | | | | | | | |
| CHARACATO | D 1959 | | A | AMJ JASOND | | | | | | | | |
| ARE | D 1960 | | A | F AMJ JASOND | | | | | | | | |
| (-16.47 288.52) | D 1961 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1962 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1963 | | A | JFM MJ JASOND | | | | | | | | |
| | D 1964 | | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1966 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1967 | | A | JASOND | | | | | | | | |
| | D 1968 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1969 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1970 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1971 | | A | JFMAMJ ASOND | | | | | | | | |
| | D 1972 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1973 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | | A | JFMAM ND | | | | | | | | |
| | D 1975 | | A | JFMAMJ JASOND | | | | | | | | |
| CHARCOT | D 1932 | | | | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| CTX | D 1933 | | | | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-69.37 139.03) | D 1934 | | | | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1935 | | | | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1936 | | | | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1937 | | | | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1938 | | | | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHARCOT | D | 1939 | | | | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| CTX | D | 1940 | | | | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-69.37 139.03) | | | | | | | | | | | | | |
| | D | 1957 | KA | D | MJ JASOND | | | AB D | MJ JASOND | | | | |
| | D | 1958 | KA | D J | ASOND | | | AB D JF | MJ JASOND | | | | |
| CHATONNAYE | D | 1967 | | | | | | AB | JFMAM ASOND | | | | |
| CTE | D | 1968 | | | | | | B | J J SO D | | | | |
| (046.67 006.83) | D | 1969 | | | | | | B | J ASOND | | | | |
| | D | 1970 | | | | | | B | A | | | | |
| CHELTENHAM | D | 1901 | A | A | AMJ JASOND | | | A | AMJ JASOND | AB | AMJ JASOND | | |
| CLH | D | 1902 | A | A | AM J | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (038.73 283.16) | D | 1903 | A | A | A J JASO D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1904 | A | A | MAMJ JASO | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1905 | A | A | FMA J JAS N | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1906 | A | A | F MJ JAS D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1907 | A | A | JFM M JA ON | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1908 | A | A | M M JAS | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1909 | A | A | J M M ASO | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1910 | A | A | MA ASO | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1911 | A | A | FMAM ASO D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1912 | A | A | A O D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1913 | A | A | J MA SO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1914 | A | A | A J J SON | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1915 | A | A | MA J ASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1916 | A | A | J MAM A ON | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1917 | A | A | JF A J JASO D | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1918 | A | A | MAMJ ASOND | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1919 | A | A | JF M ASO D | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1920 | A | A | MAM S D | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1921 | A | A | AM S N | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1922 | A | A | J M SO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1923 | A | A | M J SO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1924 | A | A | J MJ O | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1925 | A | A | ASO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1926 | A | A | JFMA J SO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1927 | A | A | J MAM JA O | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1928 | A | A | M JASO | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1929 | A | A | FM JA N | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1930 | A | A | M MJ S D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1931 | A | A | J J SO | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1932 | A | A | M M ASO | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1933 | A | A | M JAS | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1934 | A | A | F J S D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1935 | A | A | M MJ J SO | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1936 | A | A | A J ON | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1937 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1938 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1939 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1940 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1941 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1942 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHELTENHAM | D | 1943 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| CLH | D | 1944 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (038.73 283.16) | D | 1945 | KA | A | D | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1946 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1947 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1948 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1949 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1950 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1951 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1952 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1953 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1954 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1955 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1956 | KA | A | JFMAMJ JAS | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| CHESTERFIELD INL | D | 1932 | | | | | | A | SOND | | | | |
| CFI | D | 1933 | | | | | | A | JFMAMJ JA | | | | |
| (063.33 269.28) | | | | | | | | | | | | | |
| CHICHIJIMA | D | 1973 | | | | | | A | JFMAMJ JASOND | | | | |
| CBI | D | 1974 | | | | | | A | JFMAMJ JASOND | | | | |
| (027.08 142.17) | D | 1975 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1976 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1980 | A | | | | | A D | JFMAMJ JASOND | | | | |
| | D | 1981 | A | | | | | A D | JFMAMJ JASOND | | | | |
| | D | 1982 | A | | | | | A D | JFMAMJ JASOND | | | | |
| CHICLAYO | D | 1957 | | ABCD | ASOND | | | ABCD | ASOND | | | | |
| CCL | D | 1958 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (-06.80 280.20) | D | 1959 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | | ABCD | JF | | | ABCD | JF | | | | |
| CHIMBOTE | D | 1957 | | ABCD | OND | | | ABCD | OND | | | | |
| CMB | D | 1958 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (-09.10 281.40) | D | 1959 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | | ABCD | J | | | ABCD | J | | | | |
| | D | 1974 | | | | | | B | JFMAMJ JASOND | | | | |
| | D | 1975 | | | | | | B | JFMAMJ JASOND | | | | |
| CHIRIPA | D | 1982 | A | | | | | | | | | | |
| CRP | | | | | | | | | | | | | |
| (010.44 275.09) | | | | | | | | | | | | | |
| CHRISTCHURCH | D | 1928 | A | | | | | A | JFMAMJ JASOND | | | | |
| CHR | D | 1929 | A | | | | | A | JFMAMJ JASOND | | | | |
| (-43.53 172.62) | D | 1930 | A | | | | | A | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CLIMAX | D 1957 | | BC | J JASOND | | | BC | J JASOND | | | | |
| CLI | D 1958 | | BC | JFMAMJ JASOND | | | BC | MJ JASOND | | | | |
| (039.37 253.82) | D 1959 | | BC | J | | | B | J | | | | |
| COIMBRA | D 1921 | A | A | MAM S N | | | A | JFMAMJ JASOND | | | | |
| COI | D 1922 | A | A | J M M O | | | A | JFMAMJ JASOND | | | | |
| (040.21 351.58) | D 1923 | A | A | M J SO | | | A | JFMAMJ JASOND | | | | |
| | D 1924 | A | A | M O | | | A | JFMAMJ JASOND | | | | |
| | D 1925 | A | A | MJ ASON | | | A | JFMAMJ JASOND | | | | |
| | D 1926 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1927 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1928 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1929 | A | | | | | A | JFMAMJ JASOND | | | | |
| (040.22 351.58) | D 1938 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1939 | A | | | | | A | JFMAMJ J | | | | |
| | D 1940 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1941 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1951 | A | | | | | A | OND | | | | |
| | D 1952 | KA | | | | | A | I JFMAMJ JASOND | | | | |
| | D 1953 | KA | | | | | A | I JFMAMJ JASOND | | | | |
| | D 1954 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1956 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1957 | KA | A | JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1958 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1959 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1960 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1961 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1962 | KA | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1963 | KA | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1964 | KA | A | JFMAMJ JASOND | | | A DE | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1965 | KA | A | JFMAMJ JASOND | | | A DE | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1966 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D 1967 | KA | A | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1968 | KA | A | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1969 | KA | A | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1970 | KA | A | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1971 | KA | A | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1972 | KA | A | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1973 | KA | A | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1974 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D 1975 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COIMBRA | D 1976 | KA | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| COI | D 1977 | KA | A | JFMAMJ JASOND | | | D | JFMAMJ JASOND | | | | |
| (040.22 351.58) | D 1978 | KA | | | | | B D | JFMAMJ JASOND | | | | |
| | D 1979 | KA | | | | | B | JFMAMJ JASOND | | | | |
| | D 1980 | KA | | | | | AB | JFMAMJ JASOND | | | | |
| | D 1981 | K | | | | | | | | | | |
| | D 1982 | KA | | | | | | | | | | |
| | D 1983 | KA | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| | D 1985 | K | | | | | | | | | | |
| COLLEGE | D 1932 | | | | | | A I | OND | | | | |
| CMO | D 1933 | A | | | | | A I | JFMAMJ JASOND | | | | |
| (064.85 212.17) | D 1934 | | | | | | A I | JFM | | | | |
| (064.87 212.18) | D 1941 | KA | A | JASOND | | | | | | | | |
| | D 1942 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1943 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1944 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1945 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1946 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1947 | KA | A | JFMAMJ JASOND | | | | | | | | |
| (064.86 212.16) | D 1948 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1949 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1950 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1951 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1952 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1953 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1954 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1955 | KA | A C | JFMAMJ JASOND | A C | JASOND | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1956 | KA | A C | JFMAMJ JASOND | A C | JFMAMJ JASOND | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1957 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | 0 |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | OND |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | JFMAMJ JASOND |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JF |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COLLEGE | D | 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| CMO | D | 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (064.86 212.16) | D | 1975 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | ABC | JFM | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | MAMJ JASOND* |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1984 | K | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1985 | K | | | | | A | JFM | | | | |
| COLLMBERG | D | 1954 | K | | | | | | | | | | |
| CLL | D | 1955 | K | | | | | | | | | | |
| (051.32 13.00) | D | 1956 | K | | | | | | | | | | |
| | D | 1957 | K | | | | | | | | | | |
| | D | 1958 | K | | | | | | | | | | |
| | D | 1959 | K | | | | | | | | | | |
| | D | 1960 | K | | | | | | | | | | |
| | D | 1961 | K | | | | | | | | | | |
| | D | 1962 | K | | | | | | | | | | |
| | D | 1963 | K | | | | | | | | | | |
| | D | 1964 | K | | | | | | | | | | |
| | D | 1965 | K | | | | | | | | | | |
| | D | 1966 | K | | | | | | | | | | |
| | D | 1967 | K | | | | | | | | | | |
| COPENHAGEN | D | 1892 | A | | | | | A | AMJ JASOND | | | | |
| COP | D | 1893 | A | | | | | A | JFMAMJ JASOND | | | | |
| (055.68 12.58) | D | 1894 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1895 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1896 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1897 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1898 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1899 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1900 | | | | | | A | JFMAMJ JASOND | | | | |
| COSTA RICA | D | 1979 | A | A | D | | | A | OND | | | | |
| SNJ | | | | | | | | | | | | | |
| ( 9.91 276.04) | | | | | | | | | | | | | |
| CUZCO | D | 1965 | | A | OND | | | | | | | | |
| CUS | D | 1966 | | A | JFMAM | | | | | | | | |
| (-13.53 288.03) | | | | | | | | | | | | | |
| DALLAS | D | 1964 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J |
| DAL | D | 1965 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (032.99 263.25) | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFM |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DALLAS | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | MAMJ JASOND |
| DAL | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (032.99 263.25) | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ |
| | D 1975 | | ABCD | JFMAM | | | | | | | | |
| DAR ES SALAAM | D 1968 | | A | ASOND | | | | | | | | |
| DRS | D 1969 | | AB | JFMAMJ JASOND | | | | | | | | |
| ( -6.78 39.22) | D 1970 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D 1971 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D 1972 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1973 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | | AB | JFMAM | | | | | | | | |
| | D 1976 | | A | JFMAMJ JAS | | | | | | | | |
| DAVAO | D 1965 | | ABCD | AMJ JASOND | | | | | | | | |
| DAV | D 1966 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| (007.05 125.38) | D 1967 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1968 | A | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D 1969 | A | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D 1970 | A | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D 1971 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | A | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1974 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | A | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1976 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D 1979 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1980 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1981 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1982 | K | ABCD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1983 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1984 | | A | JFMAMJ JASO D | | | A | JFMAMJ JASO D | | | | |
| DE BILT | D 1903 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| DBN | D 1904 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (052.10 5.18) | D 1905 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1906 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1907 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1908 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1909 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1910 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1911 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1912 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1913 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1914 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1915 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1916 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1917 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1918 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1919 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DE BILT | D | 1920 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| DBN | D | 1921 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (052.10 5.18) | D | 1922 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1923 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1924 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1925 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1926 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1927 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1928 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1929 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1930 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1931 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1932 | A | | | | | A C | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1933 | A | | | | | A C | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1934 | A | | | | | A C | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1935 | A | | | | | A C | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1936 | A | | | | | A C | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1937 | A | | | | | A C | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1938 | A | | | | | AB | JFMAMJ JASOND | AB | JFMAMJ | | |
| DEL RIO | D | 1982 | | | | | | A | SOND | A | SOND | A | SOND* |
| DLR | D | 1983 | | | | | | A | JFMAMJ | A | JFMAMJ | A | JFMAMJ * |
| (029.49 259.08) | | | | | | | | | | | | | |
| DIXON ISLAND | D | 1955 | KA | | | | | | | | | | |
| DIK | D | 1956 | KA | | | | | | | | | | |
| (073.54 80.56) | D | 1957 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | ON |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | ASOND |
| | D | 1965 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | AB | JFMAMJ JASOND |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIXON ISLAND | D 1983 | K | AB | JFMAMJ JASOND | | | | | | | | |
| DIK | D 1984 | K | | | | | | | | | | |
| (073.54 80.56) | | | | | | | | | | | | |
| DOMBAS | D 1916 | A | | | | | C | AMJ JASOND | | | | |
| DOB | D 1917 | A | | | | | C | JFMAMJ JASOND | | | | |
| (062.08 9.10) | D 1918 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1919 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1920 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1921 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1922 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1923 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1924 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1925 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1926 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1927 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1928 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1929 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1930 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1931 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1932 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1938 | A | | | | | I | JASOND | | | | |
| | D 1939 | A | | | | | I | JFMAMJ JASOND | | | | |
| | D 1940 | KA | | | | | I | JFMAMJ JASOND | | | | |
| | D 1941 | KA | | | | | I | JFMAMJ JASOND | | | | |
| | D 1942 | KA | | | | | I | JFMAMJ JASOND | | | | |
| | D 1943 | KA | | | | | I | JFMAMJ JASOND | | | | |
| | D 1944 | KA | | | | | I | JFMAMJ JASOND | | | | |
| | D 1945 | KA | | | | | I | JFMAMJ JASOND | | | | |
| | D 1946 | KA | | | | | I | JFMAMJ JASOND | | | | |
| | D 1947 | KA | | | | | I | JFMAMJ JASOND | | | | |
| | D 1948 | KA | | | | | I | JFMAMJ JASOND | | | | |
| | D 1949 | KA | | | | | | | | | | |
| | D 1950 | KA | | | | | | | | | | |
| | D 1951 | KA | | | | | | | | | | |
| (062.07 9.12) | D 1952 | KA | | | | | A D | I JFMAMJ JASOND | | | | |
| | D 1953 | KA | | | | | A CD | I JFMAMJ JASOND | | | | |
| | D 1954 | KA | | | | | A CD | I JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | A CD | I JFMAMJ JASOND | | | | |
| | D 1956 | KA | | | | | A CD | I JFMAMJ JASOND | | | | |
| | D 1957 | KA | | | | | A CD | I JFMAMJ JASOND | | | | |
| | D 1958 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1959 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1960 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1961 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1963 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DOMBAS | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| DOB | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| (062.07 9.12) | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | J JAS |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | A CD | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | | JFMAMJ JASOND | | | | |
| | D | 1983 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | |
| DOURBES | D | 1955 | KA | | | | | | | | | | |
| DOU | D | 1956 | KA | | | | | | | | | | |
| (050.10 4.60) | D | 1957 | KA | ABCD | JASOND | ABC | JASOND | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFM | | | ABCD | JFM | | | | |
| | D | 1985 | K | | | | | | | | | | |
| DUMONT DURVILLE | X | 1951 | | | | | | A | AMJ JASOND | | | | |
| DRV | | | | | | | | | | | | | |
| (-66.67 140.01) | | | | | | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DUMONT DURVILLE | X 1952 | | | | | | A | J | | | | |
| DRV | | | | | | | | | | | | |
| (-66.67 140.01) | X 1957 | KA | ABCD | AMJ JASOND | | | ABCDE | AMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1961 | K | | | | | A E | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | X 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | X 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | B E | JFMAMJ JASOND | | |
| | X 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | X 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | X 1981 | KA | ABCD | JFMAMJ JASOND | | | AB DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | X 1982 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1983 | | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| EASTER ISLAND | D 1958 | A | ABCD | M MJ JA ON | | | | | | | | |
| EIC | | | | | | | | | | | | |
| (-27.17 250.58) | D 1960 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1961 | A | ABCD | JFMAMJ J | | | | | | | | |
| | D 1962 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1963 | A | ABCD | JFMAMJ JASOND | | | A C | FMAMJ JASOND | | | | |
| | D 1964 | | A D | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J |
| | D 1968 | A | A | MAM | | | | | | | | |
| EBRO | D 1910 | A | | | | | A | JFMAMJ JASOND | | | | |
| EBR | D 1911 | A | | | | | A | JFMAMJ JASOND | | | | |
| (040.82 0.49) | D 1912 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1913 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1914 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1915 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1916 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1917 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1918 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1919 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1920 | A | | | | | A | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY | HOURLY VALUES MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EBRO | D 1921 | A | | | | | A | | JFMAMJ JASOND | | | | |
| EBR | D 1922 | A | | | | | A | | JFMAMJ JASOND | | | | |
| (040.82 0.49) | D 1923 | A | | | | | A | | JFMAMJ JASOND | | | | |
| | D 1924 | A | | | | | A | | JFMAMJ JASOND | | | | |
| | D 1925 | A | | | | | A | | JFMAMJ JASOND | | | | |
| | D 1926 | A | | | | | A | | JFMAMJ JASOND | | | | |
| | D 1927 | A | | | | | A | | JFMAMJ JASOND | | | | |
| | D 1928 | A | | | | | A | | JFMAMJ JASOND | | | | |
| | D 1929 | A | | | | | A | | JFMAMJ JASOND | | | | |
| | D 1930 | A | | | | | A | | JFMAM JASOND | | | | |
| | D 1931 | A | | | | | A | | JFMAMJ OND | | | | |
| | D 1932 | A | | | | | A C | | JFMAMJ JASOND | | | | |
| | D 1933 | A | | | | | A C | | F AMJ JASOND | | | | |
| | D 1934 | A | | | | | A C | | JFM JASOND | | | | |
| | D 1935 | A | | | | | A | | JFMAMJ JASOND | | | | |
| | D 1936 | A | | | | | A | | JFMAMJ JASOND | | | | |
| | D 1937 | A | | | | | A | | JFMAMJ JASOND | | | | |
| | D 1942 | K | | | | | | | | | | | |
| | D 1943 | KA | | | | | | | | | | | |
| | D 1944 | KA | | | | | | | | | | | |
| | D 1945 | KA | | | | | | | | | | | |
| | D 1946 | KA | | | | | | | | | | | |
| | D 1947 | KA | | | | | | | | | | | |
| | D 1948 | KA | | | | | | | | | | | |
| | D 1949 | KA | | | | | | | | | | | |
| | D 1950 | KA | | | | | | | | | | | |
| | D 1951 | KA | | | | | | | | | | | |
| | D 1952 | KA | | | | | | | | | | | |
| | D 1953 | KA | | | | | | | | | | | |
| | D 1954 | KA | | | | | | | | | | | |
| | D 1955 | KA | | | | | | | | | | | |
| | D 1956 | KA | | | | | | | | | | | |
| | D 1957 | KA | ABCD | JASOND | | | | ABCD | JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1959 | KA | | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | KA | | | | | | | | | | | |
| | D 1961 | KA | | | | | | | | | | | |
| | D 1962 | KA | | | | | | | | | | | |
| | D 1963 | KA | | | | | | | | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | | | | | | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASO |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | | ABCD | JFMAMJ JASOND | A | S | A | S |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | | A CD | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EBRO | D 1975 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| EBR | D 1976 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (040.82 0.49) | D 1977 | A | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1978 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1979 | A | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1983 | | | | | | A | ASO | | | | |
| EIELSON AFB | D 1966 | | ABC | SOND | | | | | | | | |
| ENB | D 1967 | | ABC | JFMAMJ JASOND | | | | | | | | |
| (064.67 212.92) | D 1968 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1969 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1970 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1971 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1972 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1973 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | | B | JFMAMJ JASOND | | | | | | | | |
| EIGHTS | D 1963 | KA | A | J JASOND | | | A | J JASOND | | | | |
| EGS | D 1964 | KA | A | JFMAMJ JASOND | A | JFMAMJ JASOND | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| (-75.23 282.83) | D 1965 | KA | A | JFMAMJ JASO | A | JFMAMJ JASO | AB E | JFMAMJ JASO | AB E | JFMAMJ JAS | A | JFMAMJ JAS |
| ELIZABETHVILLE | D 1932 | A | | | | | A C | ND | | | | |
| ELI | D 1933 | A | | | | | A C | JFMAMJ JASOND | | | | |
| (-11.66 27.47) | D 1934 | A | | | | | A | JFMAMJ JAS | | | | |
| | D 1938 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1939 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1940 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1941 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1942 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1943 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1944 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1945 | A | | | | | A | JFMAMJ JASOND | | | | |
| ENKOPING | D 1965 | | | | BC | JFMAMJ JASOND | | | | | | |
| ENK | D 1966 | | | | BC | JFMAMJ JASOND | | | | | | |
| (059.60 017.02) | D 1967 | | | | BC | JFMAMJ JASOND | | | | | | |
| | D 1968 | | | | ABC | JFMAMJ JASOND | | | | | | |
| | D 1969 | | | | ABC | JFMAMJ JASOND | | | | | | |
| | D 1970 | | | | ABC | JFMAMJ JASOND | | | | | | |
| | D 1971 | | | | BC | JFMAMJ JASOND | | | | | | |
| | D 1972 | | | | A C | JFMAMJ JASOND | | | | | | |
| | D 1973 | | | | C | JFMAMJ JASOND | | | | | | |
| | D 1974 | | | | A C | JFMAMJ JASOND | | | | | | |
| | D 1975 | | | | A C | JFMAMJ JASOND | | | | | | |
| | D 1977 | | | | A C | JFMAMJ JASOND | | | | | | |
| | D 1978 | | | | A C | JFMAMJ JASOND | | | | | | |
| | D 1979 | | | | A C | JFMAMJ JASOND | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ENKOPING<br>ENK<br>(059.60 017.02) | D | 1980 | | A | JFMAMJ JASOND | A C | JFMAMJ JASOND | | | | | | |
| ESKDALEMUIR<br>ESK<br>(055.32 356.80) | D | 1911 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1912 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1913 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1914 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1915 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1916 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1917 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1918 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1919 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1920 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1921 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1922 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1923 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1924 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1925 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1926 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1927 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1928 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1929 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1930 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1931 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1932 | A | | | | | A C E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1933 | A | | | | | A C E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1934 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1935 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1936 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1937 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1938 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1939 | A | | | | | A EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1940 | KA | | | | | A EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1941 | KA | | | | | A EI | JFMAMH JASOND | AB | JFMAMJ JASOND | | |
| | D | 1942 | KA | | | | | A EI | JFMAMH JASOND | AB | JFMAMJ JASOND | | |
| | D | 1943 | KA | | | | | A EI | JFMAMH JASOND | AB | JFMAMJ JASOND | | |
| | D | 1944 | KA | | | | | A EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1945 | KA | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1946 | KA | | | | | A E | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1947 | KA | | | | | A E | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1948 | KA | | | | | A E | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1949 | KA | | | | | A EI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1950 | KA | AB D | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1951 | KA | AB D | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1952 | KA | AB D | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1953 | KA | AB D | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1954 | KA | AB D | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1955 | KA | AB D | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1956 | KA | AB D | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1957 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ESKDALEMUIR | D | 1958 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| ESK | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| (055.32 356.80) | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | ABC E | JFMAMJ JASOND | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | E | JFMAMJ JASOND | | |
| | D | 1983 | KA | | | | | A E | JFMAMJ JASOND | E | JFMAMJ JASOND | | |
| | D | 1984 | K | | | | | E | JFMAMJ JASOND | E | JFMAMJ JASOND | | |
| | D | 1985 | | | | | | E | JFMAM | E | JFMAM | | |
| ESKIMO POINT | D | 1974 | | ABC | ASOND | | | | | | | A | SOND* |
| EKP | D | 1975 | | ABC | JFMAMJ JASOND | | | | | | | A | MAMJ JASOND* |
| (061.10 265.93) | D | 1976 | | ABC | JFMAMJ JASOND | | | | | | | A | J MAMJ JAS D* |
| | D | 1977 | | | | | | | | | | A | JFMA * |
| | D | 1978 | | | | | | | | | | A | J J * |
| | D | 1979 | | | | | | | | | | | |
| | D | 1980 | | | | | | | | | | | |
| | D | 1981 | | | | | | | | | | | |
| ESPANOLA | D | 1957 | | ABCD | J JASOND | | | ABCD | J JASOND | | | | |
| EPN | D | 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (035.98 253.95) | D | 1959 | | ABCD | J | | | AB D | J | | | | |
| ETTAYAPURAM | D | 1976 | | A | FM | | | | | | | | |
| ETT | | | | | | | | | | | | | |
| (009.00 078.00) | | | | | | | | | | | | | |
| EUSEBIO | D | 1977 | A | | | | | | | | | A | JASOND* |
| EUS | D | 1978 | | | | | | | | | | A | MAMJ JASOND* |
| ( -3.89 321.56) | D | 1979 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1980 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1981 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1982 | | | | | | | | | | A | JFMA * |
| EYREWELL | D | 1978 | KA | | | | | | | | | | |
| EYR | D | 1979 | KA | | | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EYREWELL | D 1981 | K | A | ND | | | | | | | | |
| EYR | | | | | | | | | | | | |
| (-43.42 172.35) | D 1983 | KA | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| | D 1985 | K | | | | | | | | | | |
| FANNING | D 1957 | A | ABCD | JASOND | | | | ABCDE JASOND | AB E | JASOND | | |
| FAN | D 1958 | A | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (003.91 200.61) | D 1959 | | | | | | | | AB | JFMAMJ JASOND | | |
| FORT CHURCHILL | D 1957 | A | ABCD | J JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| FCC | D 1958 | A | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | | | | |
| (058.77 265.90) | D 1959 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1960 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1961 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1962 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1963 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1964 | A | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | D 1965 | A | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | A | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | A | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1968 | A | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1969 | A | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1970 | A | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1971 | A | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1972 | A | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1973 | A | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1974 | A | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1975 | A | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1976 | KA | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1977 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1978 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1979 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1980 | A | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1981 | A | ABCD | JFMAMJ JASOND | | | | A JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1982 | A | ABCD | JFMAMJ JASOND | | | | A JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1983 | A | ABCD | JFMAMJ JASOND | | | | A JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1984 | | ABCD | JFMAMJ JAS | | | | A JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| FORT RAE | D 1932 | | | | | | | A ASOND | | | | |
| FRA | D 1933 | | | | | | | A JFMAMJ JA | | | | |
| (062.80 243.90) | | | | | | | | | | | | |
| | D 1964 | | | | | | | A JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| FORT SIMPSON | D 1977 | | | | | | | | | | A | JASOND* |
| FSP | D 1978 | | | | | | | | | | A | J MAMJ JASOND* |
| (061.75 238.77) | D 1979 | | | | | | | | | | A | JFM JA OND* |
| | D 1980 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1981 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1982 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1983 | | | | | | | | | | A | JFMAMJ JASOND* |
| FORT SMITH | D 1977 | | | | | | | | | | A | D* |
| FSM | D 1978 | | | | | | | | | | A | A J JASOND* |
| (058.00 246.00) | D 1979 | | | | | | | | | | A | JFMAMJ JASOND* |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORT SMITH<br>FSM<br>(058.00 246.00) | D 1980<br>D 1981<br>D 1982<br>D 1983 | | | | | | | | | | A<br>A<br>A<br>A | J SOND*<br>FMAMJ JASOND*<br>JFMAMJ JASOND*<br>JFMAMJ JASOND* |
| FORT YUKON<br>FYU<br>(066.57 214.73) | D 1957<br>D 1958<br>D 1959<br>D 1968<br>D 1973<br>D 1974<br>D 1975<br>D 1976<br>D 1977<br>D 1978<br>D 1979<br>D 1980<br>D 1981<br>D 1982<br>D 1983 | A | ABCD<br>ABCD<br>A<br>A<br>A<br>A<br>A | J JASOND<br>JFMAMJ JASOND<br>FM<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND | | | ABCD<br>ABCD | J JA OND<br>JFMAMJ JASOND | | | A<br>A<br>A<br>A<br>A<br>A<br>A | S ND*<br>MA ASOND*<br>JFMAMJ JASOND*<br>JFMAMJ JASOND*<br>JFMAMJ JASOND*<br>JFMAMJ JASOND*<br>JFMAMJ JASOND* |
| FREDERICKSBURG<br>FRD<br>(038.21 282.63) | D 1956<br>D 1957<br>D 1958<br>D 1959<br>D 1960<br>D 1961<br>D 1962<br>D 1963<br>D 1964<br>D 1965<br>D 1966<br>D 1967<br>D 1968<br>D 1969<br>D 1970<br>D 1971<br>D 1972<br>D 1973<br>D 1974<br>D 1975<br>D 1976<br>D 1977<br>D 1978<br>D 1979<br>D 1980<br>D 1981<br>D 1982<br>D 1983<br>D 1984<br>D 1985 | KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>KA<br>K<br>K | A C<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD | JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND | ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>ABC<br>A C | J JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND | A E<br>ABCDEI<br>ABCDEI<br>ABCDEI<br>ABCDEI<br>ABCDEI<br>ABCDEI<br>ABCDE<br>ABCDE<br>ABCDE<br>ABCDE<br>ABCDE<br>ABCDE<br>ABCDE<br>ABCDE<br>ABCDE<br>ABCDE<br>ABCDE<br>ABCDE<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD<br>ABCD | JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND | AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB E<br>AB<br>AB<br>AB<br>AB<br>A<br>A | JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND | A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A | ASOND<br>ND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFMAMJ JASOND<br>JFM D<br>JF<br>MJ JA |

| OBSERVATORY | YEAR | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | COMP | | | | | | | | | | | |
| FREETOWN | D 1961 | | ABCD | JASOND | | | ABCD | JASOND | | | | |
| FTN | D 1962 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (008.47 346.78) | D 1963 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1964 | | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | E | JFMAMJ JASOND | | |
| | D 1965 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | | | | |
| | D 1966 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1967 | | ABCD | JF J | | | | | | | | |
| FUQUENE | D 1955 | A | | | | | A | JFMAMJ JASOND | | | | |
| FUQ | D 1956 | A | | | | | A C | JFMAMJ JASOND | | | | |
| (005.47 286.26) | D 1957 | KA | ABCD | JFM JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | ASOND |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | B I | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | B I | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | ASO D | A | ASO D |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ | A | JF AMJ |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JASO | A | JASO |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D 1973 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1974 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1975 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JAS | | | | |
| | D 1982 | A | A | JFMAMJ | | | A | JFMAMJ JASOND | | | | |
| FURSTENFELDBRUCK | D 1940 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| FUR | D 1941 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| (048.17 11.28) | D 1942 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1943 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1944 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1945 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1946 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1947 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1948 | KA | | | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1949 | KA | | | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1950 | KA | | | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1951 | KA | | | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1952 | KA | | | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1953 | KA | | | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1954 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | A CD I | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FURSTENFELDBRUCK | D 1956 | KA | | | | | A CD I | JFMAMJ JASOND | | | | |
| FUR | D 1957 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| (048.17 11.28) | D 1958 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1959 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1960 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1961 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | ABCD I | JFMAM@ JASOND | | | | |
| | D 1963 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | SOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ SO |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMA O | A | JFMA O |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | MJ JAS | A | J JAS |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMA | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1984 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| GENOVA | D 1958 | | | | | | B I | JASOND | | | | |
| GEN | D 1959 | | | | | | B I | JFMAMJ JASOND | | | | |
| (044.55 008.95) | D 1960 | | | | | | BC | JFMAMJ JASOND | | | | |
| | D 1961 | | | | | | BC I | JFMAMJ JASOND | | | | |
| | D 1962 | | | | | | BC I | JFMAMJ JASOND | | | | |
| GILLAM | D 1973 | | A | MJ JASOND | | | | | | | A | OND* |
| GIM | D 1974 | | ABC | JFMAM | | | | | | | A | MA J JASOND* |
| (056.85 265.58) | D 1975 | | ABC | ASOND | | | | | | | A | JFMAMJ JASOND* |
| | D 1976 | | ABC | JFMAM | | | | | | | A | JFMAMJ J * |
| | D 1977 | | | | | | | | | | | |
| | D 1978 | | | | | | | | | | | |
| | D 1979 | | | | | | | | | | | |
| | D 1980 | | | | | | | | | | | |
| GJOAHAVN | D 1903 | | | | | | A | ND | | | | |
| GJO | D 1904 | | | | | | A | JFMAMJ JASOND | | | | |
| (068.63 264.08) | D 1905 | | | | | | A | JFMAM | | | | |
| GLENLEA | X 1980 | | AB | OND | | | | | | | | |
| GLL | X 1981 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| (049.60 262.90) | X 1982 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1983 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | X 1984 | | ABCD | JFMAMJ JAS | | | | | | | | |
| GNANGARA | D 1957 | K | ABCD | JASOND | | | A CDE | JASOND | E | ND | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY | MEDIUM | WDC | HOURLY VALUES ON | TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GNANGARA | D 1958 | K | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | | E | JFMAMJ | JASOND | | |
| GNA | D 1959 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | | A E | JFMAMJ | JASOND | | |
| (-31.78 115.95) | D 1960 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | | A E | | ASOND | A | ASOND |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | A EI | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | A EI | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | A EI | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | A EI | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | A EI | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | A EI | JFM | JASO | A | JFM JASO |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | A DE | JFMAMJ JASOND | | A EI | JFM | | A | JFM |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | | | | | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | | | | | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | | | | | | | | |
| | D 1974 | KA | A D | JFMAMJ JASOND | | | | | | | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | | | | | | | | |
| | D 1976 | KA | AB D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | A | JFMAMJ | JASOND | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | A | JFMAMJ | JASOND | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | A | JFMAMJ | JASOND | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | AB | JFMAMJ | JASOND | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | AB | JFMAMJ | JASOND | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ | | A | JFMAMJ | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | | | | | | | | |
| | D 1983 | KA | A | JFMAMJ JASO | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | | | |
| | D 1985 | K | | | | | | | | | | | | |
| GODHAVN | D 1926 | A | D | JFMAMJ JASOND | | | A | FMAMJ JASOND | | | | | | |
| GDH | D 1927 | A | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| (069.24 306.48) | D 1928 | A | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1929 | A | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1930 | A | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1931 | A | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1932 | A | D | JFMAMJ | | | A | JFMAMJ JASOND | | | | | | |
| | D 1933 | A | | | | | A | JFMAMJ JASOND | | | | | | |
| | D 1934 | A | | | | | A | JFMAMJ JASOND | | | | | | |
| | D 1935 | A | | | | | A | JFMAMJ JASOND | | | | | | |
| | D 1936 | A | | | | | A | JFMAMJ JASOND | | | | | | |
| | D 1937 | A | | | | | A | JFMAMJ JASOND | | | | | | |
| | D 1938 | A | | | | | A | JFMAMJ JASOND | | | | | | |
| | D 1939 | A | D | JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1940 | A | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1941 | A | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1942 | A | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1943 | KA | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1944 | KA | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1945 | KA | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | | | |
| | D 1946 | KA | D | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | | | |
| | D 1947 | KA | D | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | | | |
| | D 1948 | A | D | JFMAMJ JASOND | | | A C | I JFMAMJ JASOND | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GODHAVN | D 1949 | A | D | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| GDH | D 1950 | A | D | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| (069.24 306.48) | D 1951 | KA | D | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| | D 1952 | KA | D | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| | D 1953 | KA | D | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| | D 1954 | KA | D | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| | D 1955 | KA | D | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1956 | KA | D | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1957 | KAQ | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1958 | KAQ | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SO D |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JF AMJ |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JASO |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | M |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (069.25 306.47) | D 1976 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1980 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1981 | A | ABCD | JFMAMJ J ND | | | | | | | | |
| | D 1982 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1983 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1984 | A | ABCD | JFMAMJ JASON | | | | | | | | |
| GONZALES VIDELA GVD (-64.82 297.15) | D 1961 | A | A | MAMJ JASOND | | | A | MAMJ JASOND | | | | |
| GOTTINGEN | D 1957 | | AB D | JASOND | | | | | | | | |
| GTT | D 1958 | | AB D | JFMAMJ JASOND | | | | | | | | |
| (051.53 9.97) | | | | | | | | | | | | |
| GRAHAMSTOWN | D 1974 | | | | | | A | JFMAMJ JASOND | | | | |
| GRM | D 1975 | | | | | | A | JFMAMJ JASOND | | | | |
| (-33.32 26.50) | D 1976 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1977 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1978 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1979 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1980 | | | | | | A | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GREAT WHALE R. | D | 1965 | | ABCD | JFM ASOND | ABC | JFM ASOND | A DE | SOND | A EI | SOND | A | SOND |
| GWC | D | 1966 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A DE | JFMAMJ JASOND | A EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (055.27 282.22) | D | 1967 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | A EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | A EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1969 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | A EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1970 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1971 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | AB DE | JFMAMJ JASOND | A EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1972 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ | ABCDE | JFMAMJ JASOND | A EI | JFMAMJ JASOND | A | OND* |
| | D | 1973 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1974 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | AB | JFMAMJ JASOND* |
| | D | 1975 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1979 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1980 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1981 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1982 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1983 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1984 | | ABCD | JFMAMJ JAS | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| GREENWICH | D | 1916 | A | | | | | A | JFMAMJ JASOND | | | | |
| GRW | D | 1917 | A | | | | | A | JFMAMJ JASOND | | | | |
| (051.48 0.00) | D | 1918 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1919 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1920 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1921 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1922 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1923 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1924 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1925 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1926 | | | | | | A | JFMAM | | | | |
| GROCKA | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| GCK | D | 1959 | KA | | | | | | | | | | |
| (044.63 20.77) | D | 1960 | KA | | | | | | | | | | |
| | D | 1961 | KA | | | | | | | | | | |
| | D | 1962 | KA | | | | | | | | | | |
| | D | 1963 | KA | | | | | | | | | | |
| | D | 1964 | KA | B | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1965 | KA | B | JFMAMJ JASOND | A C | FMAMJ JASOND | AB | JFMAMJ JASOND | | | | |
| | D | 1966 | KA | | | | | | | | | | |
| | D | 1967 | KA | | | | | | | | | | |
| | D | 1968 | KA | | | | | | | | | | |
| | D | 1969 | KA | | | | | | | | | | |
| | D | 1970 | KA | | | | | | | | | | |
| | D | 1971 | KA | | | | | | | | | | |
| | D | 1972 | KA | | | | | | | | | | |
| GUAM | D | 1957 | KA | ABCD | JFMAMJ JASOND | ABC | JASOND | ABCDEI | JFMAMJ JASOND | A E | JASOND | | |
| GUA | D | 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| (013.58 144.87) | D | 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | ASOND |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GUAM | D | 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | OND |
| GUA | D | 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JA |
| (013.58 144.87) | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFM |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| GUANGZHOU | D | 1958 | A | | | | | A | JFMAMJ JASOND | | | | |
| GZH | D | 1959 | A | | | | | A | JFMAMJ JASOND | | | | |
| (023.09 113.34) | D | 1979 | | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1980 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1981 | A | | | | | A C | JFMAMJ JASOND | | | | |
| HALLEY BAY | D | 1957 | KAQ | ABCD | MJ JASOND | | | ABCDE | AMJ JASOND | AB E | MAMJ JASOND | | |
| HBA | D | 1958 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-75.52 333.37) | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-75.52 333.35) | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-75.52 333.33) | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-75.52 333.32) | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1967 | K | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1968 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1971 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1980 | | ABCD | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HARTEBEESTHOEK | D 1972 | | | | | | A | JFMAMJ JASOND | | | | |
| HBK | D 1973 | | | | | | A | JFMAMJ JASOND | | | | |
| (-25.88 27.71) | D 1974 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1975 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1976 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1977 | A | | | | | A D | JFMAMJ JASOND | | | | |
| | D 1978 | A | | | | | A D | JFMAMJ JASOND | | | | |
| | D 1979 | A | | | | | A D | JFMAMJ JASOND | | | | |
| | D 1980 | A | | | | | B D | JFMAMJ JASOND | | | | |
| | D 1981 | A | | | | | B D | JFMAMJ JASOND | | | | |
| | D 1982 | A | | | | | B D | JFMAMJ JASOND | | | | |
| HARTLAND | D 1957 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| HAD | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| (051.00 355.52) | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1962 | KA | A CD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | FMAMJ JASOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAM A O |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1981 | KA | BCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1982 | KA | BCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | E | JFMAMJ JASOND | | |
| | D 1983 | | | | | | E | JFMAMJ JASOND | E | JFMAMJ JASOND | | |
| | D 1984 | K | | | | | A E | J MAMJ JASON | E | JFMAMJ JASOND | | |
| | D 1985 | | | | | | E | JFMAN | E | JFMAM | | |
| HATIZYO | D 1967 | A | | | | | A | J JASOND | | | | |
| HTY | D 1968 | A | | | | | A | JFMAMJ JASOND | | | | |
| (033.12 139.80) | D 1969 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1970 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1971 | | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D 1972 | | | | | | AB D | JFMAMJ JASOND | | | | |
| | D 1973 | | | | | | AB D | JFMAMJ JASOND | | | | |
| (033.07 139.83) | D 1979 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1980 | A | ABCD | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D 1981 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | A CD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HATIZYO | D | 1983 | A | CD | JFMAMJ JASOND | | | | | | | | |
| HTY | | | | | | | | | | | | | |
| (033.07 139.83) | | | | | | | | | | | | | |
| HAVANA | D | 1964 | K | ABCD | ASOND | | | ABCD | ASOND | | | | |
| HVN | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| (022.97 277.86) | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | SOND | A | SO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ | A | JF AMJ |
| | D | 1969 | K | AB | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1970 | K | | | | | | | | | | |
| | D | 1971 | K | | | | | | | | | | |
| | D | 1972 | K | | | | | B | JFMAMJ JASON | | | | |
| | D | 1974 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1975 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1976 | A | B | JFMAMJ JASOND | | | B | JFMAMJ | | | | |
| | D | 1978 | A | B | JFMAMJ JASOND | | | | | | | | |
| | D | 1982 | K | | | | | | | | | | |
| HEALY | D | 1957 | A | ABCD | JASOND | ABC | JASOND | ABCD | JASOND | | | | |
| HEA | D | 1958 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| (063.86 211.03) | D | 1959 | | A | J | A C | J | | | | | | |
| HEARD ISLAND | D | 1952 | KA | | | | | A | MAMJ JASOND | | | | |
| HII | D | 1953 | KA | | | | | A | JFMAMJ JASOND | | | | |
| (-53.03 73.37) | D | 1954 | A | | | | | A | JFMAMJ JASO | | | | |
| HEISS ISLAND | D | 1957 | | BC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| HIS | D | 1958 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (080.62 58.05) | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASO D | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KAQ | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1965 | KAQ | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | OND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFM MJ JA OND | A | JFM J J ND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | ASO | A | ASO |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | A C | JF | ABCD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | A C | MJ JASOND | | | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | A C | JFM | A | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1980 | K | ABCD | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEISS ISLAND | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| HIS | D | 1982 | KA | AB | JFMAMJ JASOND | | | | | | | | |
| (080.62 58.05) | D | 1983 | K | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| HEL | D | 1957 | KA | AB D | JASOND | | | | | | | | |
| HLP | D | 1958 | KA | AB D | JFMAMJ JASOND | | | | | | | | |
| (054.61 18.82) | D | 1959 | KA | AB D | JFMAMJ JASOND | | | | | | | | |
| | D | 1960 | KA | | | | | | | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1962 | KA | | | | | | | | | | |
| | D | 1963 | KA | | | | | | | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1965 | KA | | | | | | | | | | |
| | D | 1966 | KA | | | | | | C JFMAMJ JASOND | | | | |
| | D | 1967 | KA | | | | | | C JFMAMJ JASOND | | | | |
| | D | 1968 | KA | | | | | | C JFMAMJ JASOND | | | | |
| | D | 1969 | KA | | | | | | C JFMAMJ JASOND | | | | |
| | D | 1970 | KA | | | | | | C JFMAMJ JASOND | | | | |
| | D | 1971 | KA | | | | | | A C JFMAMJ JASOND | | | | |
| | D | 1972 | KA | | | | | | A C JFMAMJ JASOND | | | | |
| | D | 1973 | KA | | | | | | A C JFMAMJ JASOND | | | | |
| | D | 1974 | KA | | | | | | A C JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1975 | KA | | | | | | A C JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1976 | KA | | | | | | ABC JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1977 | KA | | | | | | ABC JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1978 | KA | | | | | | ABC JFMAMJ JASOND | | | | |
| | D | 1979 | KA | | | | | | ABC JFMAMJ JASOND | | | | |
| | D | 1980 | KA | | | | | | ABC JFMAMJ JASOND | | | | |
| | D | 1981 | KA | | | | | | AB JFMAMJ JASOND | | | | |
| | D | 1982 | KA | | | | | | ABC JFMAMJ JASOND | | | | |
| | D | 1983 | KA | | | | | | A C JFMAMJ JASOND | | | | |
| HELWAN | D | 1947 | A | | | | | | A JFMAMJ JASOND | | | | |
| HLW | D | 1948 | A | | | | | | A JFMAMJ JASOND | | | | |
| (029.86 31.34) | D | 1949 | A | | | | | | A JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | | A JFMAMJ JASOND | | | | |
| | D | 1957 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1958 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1959 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1960 | KA | | | | | | | | | | |
| | D | 1979 | | | | | | | A JFMAMJ JASOND | | | | |
| | D | 1980 | | | | | | | A JFMAMJ JASOND | | | | |
| HERMANUS | D | 1941 | KA | | | | | | A EI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| HER | D | 1942 | KA | | | | | | A EI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-34.43 19.23) | D | 1943 | KA | | | | | | A EI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1944 | KA | | | | | | A EI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1945 | KA | | | | | | A EI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1946 | KA | | | | | | A EI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1947 | KA | | | | | | A EI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1948 | KA | | | | | | A EI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HERMANUS | D 1949 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| HER | D 1950 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-34.43 19.23) | D 1951 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1952 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1953 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1954 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1955 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1956 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1957 | KA | ABCD | JASOND | ABC | JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1959 | KA | ABC | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | FMA J JAS |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFM |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1983 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1984 | K | A | JFMAMJ JA | | | | | | | | |
| | D 1985 | K | | | | | | | | | | |
| HOLLANDIA | D 1957 | KA | ABCD | JASOND | ABC | JAS | ABCD | JASOND | | | | |
| HNA | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| ( -2.57 140.51) | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | KA | ABCD | JFMAMJ JA | | | ABCD | JFMAMJ JASOND | | | | |
| HONG KONG | D 1971 | | A | ND | | | A | ND | | | | |
| HKC | D 1972 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| (022.36 114.22) | D 1973 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | A | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1975 | A | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1976 | A | A | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1977 | A | A | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1978 | A | A | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HONOLULU | D 1902 | A | A | AM J | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| HON | D 1903 | A | A | A J JASO D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (021.32 201.94) | D 1904 | A | A | MAMJ JASON | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1905 | A | A | FMA JAS N | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1906 | A | A | F MJ JAS D | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1907 | A | A | FM M J ON | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1908 | A | A | M M JAS | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1909 | A | A | J M M ASO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1910 | A | A | J MA ASO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1911 | A | A | FMAM ASO D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1912 | A | A | AS D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1913 | A | A | J MA SO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1914 | A | A | A J J SON | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1915 | A | A | MA J ASOND | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1916 | A | A | J MAM JA ON | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1917 | A | A | JF A J JASO D | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1918 | A | A | MAMJ ASOND | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1919 | A | A | JF M ASO D | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1920 | A | A | MAM S D | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1921 | A | A | AM S N | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1922 | A | A | J M SO | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1923 | A | A | M J SO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1924 | A | A | J MJ O | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1925 | A | A | ASO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1926 | A | A | JFMA J SO | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1927 | A | A | J M M JA O | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1928 | A | A | M JASO | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1929 | A | A | FM J N | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1930 | A | A | M MJ S D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1931 | A | A | MJ O | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1932 | A | A | M ASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1933 | A | A | A JAS | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1934 | A | A | F M J D | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1935 | A | A | M MJ J SO | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1936 | A | A | A J J ON | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1937 | A | A | FMAM A O | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1938 | KA | A | J AM S | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1939 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1940 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1941 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1942 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1943 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1944 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1945 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1946 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1947 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| (021.31 201.91) | D 1948 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1949 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1950 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1951 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1952 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HONOLULU | D 1953 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| HON | D 1954 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| (021.31 201.91) | D 1955 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1956 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1957 | KA | ABCD | JFMAMJ JASOND | ABC | JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | ASOND |
| (021.32 202.00) | D 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFM |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAM ASO | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | MAMJ JASOND* |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| | D 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| HUANCAYO | D 1922 | A | | | | | A E | MAMJ JASOND | | | | |
| HUA | D 1923 | A | | | | | A E | JFMAMJ JASOND | | | | |
| (-12.05 284.66) | D 1924 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1925 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1926 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1927 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1928 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1929 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1930 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1931 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1932 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1933 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1934 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1935 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1936 | A | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1937 | KA | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1938 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1939 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1940 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1941 | KA | | | | | A EI | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HUANCAYO | D | 1942 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| HUA | D | 1943 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| (-12.05 284.66) | D | 1944 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D | 1945 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D | 1946 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D | 1947 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D | 1948 | KA | C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | | | | |
| | D | 1949 | KA | C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | | | | |
| | D | 1950 | KA | C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | | | | |
| | D | 1951 | KA | C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | | | | |
| | D | 1952 | KA | C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | | | | |
| | D | 1953 | KA | C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | | | | |
| | D | 1954 | KA | C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | | | | |
| | D | 1955 | KA | C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | | | | |
| | D | 1956 | KA | C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | | | | |
| | D | 1957 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | A | D | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | A DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | A E | ASO D | A | ASO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | A E | JFMAMJ | A | JF AMJ |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | A E | JASO | A | JASO |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMA | | |
| | D | 1981 | KA | A C | JFMAMJ JASOND | | | | | | | | |
| | D | 1982 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| HURBANOVO | D | 1949 | A | | | | | A I | JFMAMJ JASOND | | | | |
| HRB | D | 1950 | A | | | | | A I | JFMAMJ JASOND | | | | |
| (047.87 18.19) | D | 1951 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1952 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1953 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1954 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1955 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | A I | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HURBANOVO | D 1957 | KA | | | | | AB D I | JFMAMJ JASOND | | | | |
| HRB | D 1958 | KA | | | | | AB D I | JFMAMJ JASOND | | | | |
| (047.87 18.19) | D 1959 | KA | | | | | AB D I | JFMAMJ JASOND | | | | |
| | D 1960 | KA | | | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1961 | KA | | | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1963 | KA | | | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1964 | KA | | | | | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D 1965 | KA | | | | | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D 1966 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1967 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1968 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1969 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1970 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | BCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1983 | KA | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| | D 1985 | K | | | | | | | | | | |
| HYDERABAD | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | FM J JASOND |
| HYB | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | A | J M D | A | J M D |
| (017.41 78.56) | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | E | SOND | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ | A | JFMAMJ |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1977 | KA | A CD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1982 | KA | BCD | JFMAMJ JASOND | | | | | | | | |
| | D 1983 | K | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| | D 1985 | K | | | | | | | | | | |
| IBADAN | D 1957 | A | ABCD | JASOND | | | ABCD | JASOND | | | | |
| IBD | | | | | | | | | | | | |
| (007.43 3.90) | | | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IBADAN | D | 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| IBD | D | 1959 | A | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (007.43 3.90) | D | 1960 | A | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1961 | A | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1962 | A | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1963 | | A | JFMAMJ JASOND | | | A | MJ JASOND | | | | |
| | D | 1964 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1965 | | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | O | A | O |
| | D | 1966 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1967 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1968 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1969 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1970 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1971 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1972 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1973 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1974 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1975 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1976 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | | A | JFMAMJ JASOND | | | | | | | | |
| INUVIK | D | 1977 | | | | | | | | | | A | OND* |
| INK | D | 1978 | | | | | | | | | | A | JFMAMJ JASOND* |
| (068.25 226.70) | D | 1979 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1980 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1981 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1982 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1983 | | | | | | | | | | A | JFMAMJ JASOND* |
| IRKUTSK | D | 1941 | KA | | | | | | | | | | |
| IRT | D | 1942 | KA | | | | | | | | | | |
| (052.46 104.04) | D | 1943 | KA | | | | | | | | | | |
| | D | 1944 | KA | | | | | | | | | | |
| | D | 1945 | KA | | | | | | | | | | |
| | D | 1946 | KA | | | | | | | | | | |
| | D | 1952 | KA | | | | | | | | | | |
| | D | 1953 | KA | | | | | | | | | | |
| | D | 1954 | KA | | | | | | | | | | |
| | D | 1955 | KA | | | | | | | | | | |
| | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | ABCD | JASOND | A | SOND | ABCDE | JASOND | AB E | JASOND | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (052.17 104.45) | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JAS |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | AMJ ASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IRKUTSK | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JASO |
| IRT | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (052.17 104.45) | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1984 | K | ABCD | JFMAMJ JA | | | ABCD | JFMAMJ JA | | | | |
| ISLAND LAKE | D 1976 | | A C | OND | | | | | | | A | JFMAMJ OND* |
| ISL | D 1977 | | | | | | | | | | A | FMAMJ JAS * |
| (053.88 265.32) | D 1978 | | | | | | | | | | A | JFMAMJ JAS D* |
| | D 1979 | | | | | | | | | | A | JFMAMJ J * |
| | D 1980 | | | | | | | | | | A | J JASOND* |
| | D 1981 | | | | | | | | | | A | JFMAM * |
| | D 1982 | | | | | | | | | | | |
| ISTANBUL-KANDILL | D 1947 | A | | | | | A | SOND | | | | |
| ISK | D 1948 | A | | | | | A | I JFMAMJ JASOND | | | | |
| (041.06 29.06) | D 1949 | A | | | | | A | I JFMAMJ JASOND | | | | |
| | D 1950 | A | | | | | A | I JFMAMJ JASOND | | | | |
| | D 1951 | A | | | | | A | I JFMAMJ JASOND | | | | |
| | D 1952 | KA | | | | | A C | I JFMAMJ JASOND | | | | |
| | D 1953 | KA | | | | | A C | I JFMAMJ JASOND | | | | |
| | D 1954 | KA | | | | | A | I JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | A C | I JFMAMJ JASOND | | | | |
| | D 1956 | KA | | | | | A C | I JFMAMJ JASOND | | | | |
| | D 1957 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1958 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1959 | KA | AB | JFMAMJ JASOND | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1960 | KA | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1961 | KA | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1962 | KA | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1963 | KA | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1966 | KA | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1967 | KA | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1968 | KA | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1969 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1970 | KA | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | KA | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KA | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | KA | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ISTANBUL-KANDILL | D 1975 | KA | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| ISK | D 1976 | KA | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| (041.06 29.06) | D 1977 | KA | AB | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1978 | KA | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | K | | | | | A | JFMAMJ JASOND | | | | |
| | D 1981 | K | | | | | A C | JFMAMJ JASOND | | | | |
| IVALO | D 1957 | | AB D | ASOND | | | | | | | | |
| IVA | D 1958 | | AB D | JFMAMJ JASOND | | | | | | | | |
| (068.60 027.48) | D 1959 | | AB D | J | | | | | | | | |
| IVIGTUT | D 1943 | K | | | | | | | | | | |
| IVI | D 1944 | K | | | | | | | | | | |
| (061.20 311.85) | D 1945 | K | | | | | | | | | | |
| JAIPUR | D 1975 | | B | JASOND | | | B | JASOND | | | | |
| JAI | D 1976 | | AB | JFMAMJ JASOND | | | B | JFM | | | | |
| (026.92 75.80) | D 1977 | | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1978 | | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D 1979 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| JARVIS ISLAND | D 1957 | A | ABCD | JASOND | | | ABCDEI | JASOND | AB E | ASOND | | |
| JRV | D 1958 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| ( -0.38 199.97) | D 1959 | | | | | | AB | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| JOHNSON POINT | D 1977 | | | | | | | | | | A | J ND* |
| JOP | D 1978 | | | | | | | | | | A | MAMJ JASOND* |
| (072.47 241.70) | D 1979 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1980 | | | | | | | | | | A | M * |
| | D 1981 | | | | | | | | | | A | JASOND* |
| | D 1982 | | | | | | | | | | A | JFMA * |
| JULIANEHAAB | D 1932 | A | | | | | A | SOND | | | | |
| JUL | D 1933 | A | | | | | A | JFMAMJ JA | | | | |
| (060.72 313.97) | D 1957 | A | ABCD | SOND | | | | | | | | |
| | D 1958 | | ABCD | JF | | | | | | | | |
| | D 1964 | A | ABCD | MJ JASOND | ABC | MJ JASOND | | | | | | |
| | D 1965 | | ABCD | JFMAM | ABC | JFMAMJ JASOND | | | | | | |
| KAKIOKA | D 1913 | A | | | | | A C | JFMAMJ JASOND | | | | |
| KAK | D 1914 | A | | | | | A | JFMAMJ JASOND | | | | |
| (036.23 140.19) | D 1915 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1916 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1924 | A | C | FMAMJ JASOND | | | A | FMAMJ JASOND | | | | |
| | D 1925 | A | C | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1926 | A | C | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1927 | A | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1928 | A | C | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1929 | A | C | JFMAMJ JASOND | | | | | | | | |
| | D 1930 | A | C | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1931 | A | C | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1932 | A | C | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KAKIOKA | D 1933 | A | C | JFMAMJ JASOND | | | | | | | | |
| KAK | D 1934 | A | C | JFMAMJ JASOND | | | | | | | | |
| (036.23 140.19) | D 1935 | A | C | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1936 | A | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1937 | A | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1938 | A | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1939 | A | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1940 | A | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1941 | A | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1942 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1943 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1944 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1945 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1946 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1947 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1948 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1949 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1950 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1951 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1952 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1953 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1954 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1955 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1956 | KA | C | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D 1957 | KA | ABCD | JFMAMJ JASOND | ABC | JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | ASOND |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ OND* |
| | D 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1984 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1985 | K | A | JFM | | | A | JFM | A | JFM | A | JFM * |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KALININGRAD | D 1971 | | AB | JFMAMJ JASOND | | | | | | | | |
| KNG | D 1972 | | AB | JFMAMJ JASOND | | | | | | | | |
| (054.70 020.62) | D 1973 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D 1975 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1977 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | K | ABCD | JFMAMJ JASOND | | | C | JFMA | | | | |
| | D 1980 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1981 | | ABCD | JFMAMJ JASOND | | | C | D | | | | |
| | D 1982 | K | ABCD | JFMAMJ JASOND | | | C | JF | | | | |
| | D 1983 | K | BCD | JFMAMJ J | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| KANDALAKSHA | D 1933 | | | | | | C | SOND | | | | |
| KND | | | | | | | | | | | | |
| (067.13 032.43) | | | | | | | | | | | | |
| KANOYA | D 1957 | | A | JASOND | A C | JASOND | A | JASOND | | | | |
| KNY | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (031.42 130.88) | D 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | MAMJ JASOND | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | BC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | BC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | BC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | BC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | C | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1983 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1984 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D 1985 | K | | | | | | | | | | |
| KANOZAN | D 1962 | | | | | | A | AMJ JASOND | | | | |
| KNZ | D 1963 | | | | | | A | JFMAMJ JASOND | | | | |
| (035.25 139.96) | D 1964 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1965 | | | | | | A | AMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KANOZAN | D 1966 | A | | | | | AB | JFMAMJ JASOND | | | | |
| KNZ | D 1967 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| (035.25 139.96) | D 1968 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D 1969 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1970 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D 1971 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1972 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1973 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1974 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1975 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1976 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1977 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1978 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1979 | A | | | | | C | JFMAMJ JA D | | | | |
| | D 1980 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D 1981 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D 1982 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D 1983 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1984 | | | | | | C | JFMAMJ JASO | | | | |
| KAP TOBIN | D 1957 | | ABCD | OND | | | | | | | | |
| KTG | D 1958 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| (070.42 238.03) | D 1959 | | ABCD | JFMAMJ JA | | | | | | | | |
| | D 1981 | | | | | | C | JFMAMJ JASOND | | | | |
| | D 1982 | | | | | | C | JFMAMJ JASOND | | | | |
| KARAGANDA | D 1965 | A | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| KGD | D 1966 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| (049.82 73.08) | D 1967 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1968 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1969 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1970 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1971 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1972 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1973 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1974 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1984 | K | ABCD | JFMAMJ A | | | ABCD | JFMAMJ A | | | | |
| KARAVIA | D 1953 | | | | | | A | JFMAMJ JASOND | | | | |
| KVA | D 1954 | | | | | | A | JFMAMJ JASOND | | | | |
| (-11.64 27.42) | D 1955 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1956 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1957 | K | A | JASOND | | | | | | | | |
| | D 1958 | KA | A | JFMAMJ JASOND | | | BCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KARAVIA | D 1959 | KA | A | JFMAMJ JASOND | | | | | | | | |
| KVA | D 1960 | A | A | OND | | | | | | | | |
| (-11.64 27.42) | D 1961 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1962 | | A | JFMA | | | | | | | | |
| | D 1965 | | A | JF AS ND | | | | | | | | |
| | D 1966 | | A | MAMJ JASOND | | | | | | | | |
| | D 1967 | | A | JFMAM | | | | | | | | |
| | D 1968 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1969 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1970 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1971 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1972 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1973 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1975 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | | A | J JASOND | | | | | | | | |
| | D 1977 | | A | JFMAMJ JA | | | | | | | | |
| KAZAN | D 1932 | A | | | | | C | SOND | | | | |
| KZN | D 1933 | A | | | | | C | JFMAMJ JASOND | | | | |
| (055.83 48.85) | | | | | | | | | | | | |
| | D 1941 | KA | | | | | | | | | | |
| | D 1942 | KA | | | | | | | | | | |
| | D 1943 | KA | | | | | | | | | | |
| | D 1944 | KA | | | | | | | | | | |
| | D 1945 | KA | | | | | | | | | | |
| | D 1946 | KA | | | | | | | | | | |
| | D 1956 | KA | | | | | | | | | | |
| | D 1957 | KA | ABCD | JASOND | | | ABCD | JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | K | | | | | | | | | | |
| | D 1977 | K | | | | | | | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KAZAN | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| KZN | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (055.83 48.85) | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFMAMJ JAS | | | ABCD | JFMAMJ JAS | | | | |
| KHABAROVSK | D | 1973 | | B | J | | | B | J | | | | |
| KHB | D | 1974 | | B | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| (048.48 135.07) | D | 1975 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | | ABCD | JFMA | | | ABCD | JF | | | | |
| KHARASAVEY | D | 1973 | | B | ND | | | | | | | | |
| KHS | D | 1974 | | ABCD | JF ND | | | | | | | | |
| (071.13 066.83) | D | 1975 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | | BCD | MAMJ JASOND | | | | | | | | |
| KIEV | D | 1957 | K | | | | | | | | | | |
| KIV | D | 1958 | KA | ABCD | JASOND | A C | J JASOND | ABCD | JASOND | | | | |
| (050.72 30.30) | D | 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JA | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFMAMJ | | | ABCD | JFMAMJ | | | | |
| KIRUNA | D | 1957 | K | ABCD | JASOND | A C | JAS | | | | | | |
| KIR | D | 1958 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| (067.83 20.42) | D | 1959 | K | ABCD | J | | | | | | | | |
| | D | 1960 | K | | | | | | | | | | |
| | D | 1961 | K | ABCD | ASOND | | | | | | | | |
| | D | 1962 | K | ABCD | JFMAMJ JASOND | | | A E | OND | AB E | OND | A | OND |
| | D | 1963 | K | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A E | JFMAMJ JA | AB E | JFMAMJ JA | A | JFMAMJ JA |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KIRUNA | D 1964 | K | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A E | SOND | AB E | SOND | A | SOND |
| KIR | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (067.83 20.42) | D 1966 | K | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A E | JFMAMJ | AB E | JFMAMJ | A | JFMAMJ |
| | D 1967 | K | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A E | SO | AB E | SO | A | SO |
| | D 1968 | K | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1969 | K | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A E | J M | AB E | J M | A | J M |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1973 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | B E | JAS | | | | |
| | D 1974 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1975 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | B E | JFMAMJ | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | | | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1982 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1983 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1984 | K | A CD | JFMAMJ | | | | | | | | |
| KODAIKANAL | D 1950 | A | | | | | A I | JFMAMJ JASOND | | | | |
| KOD | D 1951 | A | | | | | A I | JFMAMJ JASOND | | | | |
| (010.23 77.46) | D 1952 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1953 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1954 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1955 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1956 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1957 | KA | ABCD | JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1960 | KA | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1961 | KA | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | A | JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1975 | A | A CD | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D 1976 | | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1977 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1978 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1979 | A | ABCD | JFMAMJ JASOND | | | B D I | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KODAIKANAL | D 1980 | A | | | | | ABCD I | JFMAMJ JASOND | | | | |
| KOD | | | | | | | | | | | | |
| ( 10.23 77.46) | | | | | | | | | | | | |
| KONTAGORA | D 1964 | | A CD | D | | | | | | | | |
| KNT | D 1965 | | A CD | JFMAMJ JASOND | | | | | | | | |
| (010.40 05.45) | | | | | | | | | | | | |
| KOROR | D 1957 | KA | ABCD | JASOND | ABC | JASOND | ABCDE | JASOND | AB EI | JASOND | | |
| KOR | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| (007.33 134.50) | D 1961 | A | | | | | | | | | | |
| (007.34 134.50) | D 1964 | A | ABCD | MJ JASOND | B | ON | A E | MJ JASOND | AB EI | MJ JASOND | A | MJ JASOND |
| | D 1965 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | A | ABCD | JFM | | | A E | JFM | AB EI | JFM | A | JFM |
| KOTZEBUE | D 1957 | | ABCD | MJ ASOND | | | ABCD | M OND | | | | |
| KOT | D 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (066.88 197.37) | D 1959 | | AB D | J | | | ABC | J | | | | |
| KSARA | D 1931 | A | | | | | C | JFMAMJ JASOND | | | | |
| KSA | D 1932 | A | | | | | C | JFMAMJ JASOND | | | | |
| (033.82 35.89) | D 1933 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1949 | KA | | | | | | | | | | |
| | D 1950 | KA | | | | | | | | | | |
| | D 1951 | KA | | | | | | | | | | |
| | D 1952 | KA | | | | | | | | | | |
| | D 1953 | KA | | | | | | | | | | |
| | D 1954 | KA | | | | | | | | | | |
| | D 1955 | KA | | | | | | | | | | |
| | D 1956 | KA | | | | | | | | | | |
| | D 1957 | KA | | | | | | | | | | |
| | D 1958 | KA | | | | | | | | | | |
| | D 1959 | KA | | | | | D | JFMAMJ JASOND | | | | |
| | D 1960 | KA | | | | | D | JFMAMJ JASOND | | | | |
| | D 1961 | KA | | | | | D | JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | | | | | | |
| | D 1963 | KA | | | | | | | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1966 | KA | | | | | | | | | | |
| | D 1967 | KA | | | | | | | | | | |
| | D 1968 | KA | | | | | | | | | | |
| | D 1969 | KA | | | | | | | | | | |
| | D 1970 | KA | | | | | | | | | | |
| | D 1971 | K | | | | | | | | | | |
| | D 1972 | K | | | | | | | | | | |
| | D 1973 | K | | | | | | | | | | |
| | D 1974 | K | | | | | | | | | | |
| | D 1975 | K | | | | | | | | | | |
| | D 1976 | K | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KSARA | D | 1977 | K | | | | | | | | | | |
| KSA | D | 1978 | K | | | | | | | | | | |
| (033.82 35.89) | D | 1979 | K | | | | | | | | | | |
| KUMASI | D | 1972 | | | | | | C | JFMAMJ JASOND | | | | |
| KUM | | | | | | | | | | | | | |
| (006.70 358.43) | | | | | | | | | | | | | |
| KUYPER | D | 1957 | KA | ABCD | JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| KUY | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| ( -6.03 106.73) | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JA | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | K | | | | | ABC | J | | | | |
| KZIL-AGACH | D | 1974 | | ABCD | M JASOND | | | | | | | | |
| KZA | D | 1975 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| (045.37 078.73) | | | | | | | | | | | | | |
| L AQUILA | D | 1958 | K | AB D | MJ JASOND | | | A | OND | | | | |
| AQU | D | 1959 | K | AB D | JFMAMJ JASOND | | | AB D | JFM | | | | |
| (042.38 13.32) | D | 1960 | KA | AB D | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | AB D | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | AB D | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | A | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D | 1966 | KA | A | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | A | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | A | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1977 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1978 | KA | A | JFMAMJ JASOND | | | A D I | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | | | | | A D | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | | | | | A D | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | |
| LA MADDALENA | D | 1958 | K | | | | | | | | | | |
| LMD | D | 1959 | K | | | | | | | | | | |
| (041.23 09.40) | D | 1960 | K | | | | | | | | | | |
| | D | 1961 | K | | | | | | | | | | |
| | D | 1962 | K | | | | | | | | | | |
| | D | 1963 | K | | | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LA PAZ | D 1964 | | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| LPB | | | | | | | | | | | | |
| (-16.54 291.90) | D 1972 | | A | JFMAMJ JASON | | | | | | | | |
| | D 1973 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | A | A | FMAMJ JASOND | | | | | | | | |
| | D 1975 | A | A | JFMAMJ JASON | | | | | | | | |
| LA QUIACA | D 1957 | A | | | | | AB | JASOND | | | | |
| LQA | D 1958 | A | | | | | AB | JFMAMJ JASOND | | | | |
| (-22.10 294.40) | D 1959 | | A | ON | | | A | JFMAMJ JASOND | | | | |
| | D 1960 | A | A | MAMJ JASOND | | | A | MAM SOND | | | | |
| | D 1961 | A | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1962 | A | ABC | JFMAMJ JASOND | | | A | JF AMJ JASOND | | | | |
| | D 1963 | A | ABCD | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | AB EI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | AB I | JFMAMJ JASOND | | | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | AB I | JFMAMJ JASOND | A | M | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | AB I | JFMAMJ JASOND | | | | |
| | D 1968 | KA | A | JFMAMJ JASOND | | | AB I | JFMAMJ JASOND | | | | |
| | D 1969 | A | A | JFMAMJ JASOND | | | AB I | JFMAMJ JASOND | | | | |
| | D 1970 | A | A | JFMAMJ JASOND | | | AB I | JFMAMJ JASOND | | | | |
| | D 1971 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1972 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1973 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1975 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | A | | | | | | | | | | |
| | D 1977 | A | ABC | J | | | B | J | | | | |
| | D 1978 | A | | | | | | | | | | |
| | D 1979 | A | | | | | | | | | | |
| | D 1980 | A | | | | | | | | | | |
| | D 1981 | A | | | | | | | | | | |
| | D 1982 | A | | | | | | | | | | |
| LANZHOU | D 1959 | A | | | | | A | JFMAMJ JASOND | | | | |
| LZH | D 1960 | A | | | | | A | JFMAMJ JASOND | | | | |
| (036.09 103.85) | D 1961 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1979 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1980 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1981 | A | | | | | A C | JFMAMJ JASOND | | | | |
| LAS ACACIAS | D 1964 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| LAS | D 1965 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| (-35.01 302.31) | D 1966 | K | ABCD | MAMJ JASOND | | | | | | | | |
| | D 1967 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1968 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1969 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1970 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1971 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1972 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D 1973 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | | AB | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LAS ACACIAS | D 1975 | K | AB | JFMAMJ JASOND | | | | | | | | |
| LAS | D 1976 | K | AB | JFMAMJ JASOND | | | | | | | | |
| (-35.01 302.31) | D 1977 | KA | AB | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | K | | | | | | | | | | |
| | D 1980 | K | | | | | | | | | | |
| | D 1981 | K | | | | | | | | | | |
| | D 1982 | K | | | | | | | | | | |
| | D 1983 | K | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| LAUDER | D 1979 | KA | | | | | | | | | | |
| LAU | | | | | | | | | | | | |
| (-45.04 160.68) | D 1981 | K | | | | | | | | | | |
| | D 1982 | K | | | | | | | | | | |
| | D 1983 | K | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| | D 1985 | K | | | | | | | | | | |
| LAZAREV | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| LZV | D 1961 | K | ABCD | JF | | | ABCD | JF | | | | |
| (-69.97 12.90) | | | | | | | | | | | | |
| LEADVILLE | D 1957 | | A D | JASOND | | | A DE | J JASOND | | | | |
| LDV | D 1958 | A | A D | JFMAMJ JASOND | | | A DE | MJ JASOND | | | | |
| (039.28 253.72) | D 1959 | | A D | J | | | A E | J | | | | |
| LEIRVOGUR | D 1957 | A | ABCD | ASOND | ABC | ASOND | ABCDEI | ASOND | | | | |
| LRV | D 1958 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | | | | |
| (064.18 338.30) | D 1959 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1960 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1961 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1962 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | SOND | A | OND |
| | D 1963 | A | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JA | A | JFMAMJ JA |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | C | JFMAMJ JAS | ABCDE | JFMAMJ JASOND | | | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | | RAPID RUN MAGNETOGRAMS WDC | | HOURLY VALUES ANY MEDIUM WDC | | HOURLY VALUES ON TAPE WDC | | 2.5-MINUTE 1.0-MINUTE(*) WDC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LEIRVOGUR | D 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | | | |
| LRV | D 1984 | K | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | | | |
| (064.18 338.30) | D 1985 | K | A | JF | | | A | JF | | | | |
| LENINGRAD | D 1949 | A | | | | | C | JFMAMJ JASOND | | | | |
| LNN | D 1950 | A | | | | | C | JFMAMJ JASOND | | | | |
| (059.95 30.71) | D 1951 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1952 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1953 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1954 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | C | JFMAMJ JASOND | | | | |
| | D 1956 | KA | | | | | C | JFMAMJ JASOND | | | | |
| | D 1957 | KA | ABCD | JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1983 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1984 | K | ABCD | JFMAMJ | | | ABCD | JFMAMJ | | | | |
| LENINGRADSKAYA | D 1971 | | AB | AMJ JASOND | | | AB | AMJ JASOND | | | | |
| LEN | D 1972 | | AB | J AMJ JASOND | | | AB | J AMJ JASOND | | | | |
| (-69.50 159.40) | D 1973 | | AB | JFM | | | B | JFM | | | | |
| LERWICK | D 1926 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| LER | D 1927 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (060.13 358.82) | D 1928 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1929 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1930 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1931 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1932 | A | | | | | A C E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1933 | A | | | | | A C E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1934 | A | | | | | A E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY | MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LERWICK | D 1935 | A | | | | | A | E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| LER | D 1936 | A | | | | | A | E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (060.13 358.82) | D 1937 | A | | | | | A | E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1938 | A | | | | | A | EI | JFMAMJ JASOND | AB | J@MAMJ JASOND | | |
| | D 1939 | A | | | | | A | EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1940 | KA | | | | | A | EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1941 | KA | | | | | A | EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1942 | KA | | | | | A | EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1943 | KA | | | | | A | EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1944 | KA | | | | | A | EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1945 | KA | | | | | A | E | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1946 | KA | | | | | A | EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1947 | KA | | | | | A | EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1948 | KA | | | | | A | EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1949 | KA | | | | | A | EI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1950 | KA | AB D | JFMAMJ JASOND | | | AB | DEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1951 | KA | AB D | JFMAMJ JASOND | | | AB | DEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1952 | KA | AB D | JFMAMJ JASOND | | | AB | DEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1953 | KA | AB D | JFMAMJ JASOND | | | AB | DEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1954 | KA | AB D | JFMAMJ JASOND | | | AB | DEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1955 | KA | AB D | JFMAMJ JASOND | | | AB | DEI | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1956 | KA | AB D | JFMAMJ JASOND | | | AB | DEI | JFMAMJ JASOND | AB | JFMAMJ JAS@ND | | |
| | D 1957 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1958 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | SOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | ABC | M | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFM |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMA@J JASOND | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | JFMAMJ JAS@ND | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | | JFMAMJ JASOND | | JFMAMJ JASOND | | |
| | D 1983 | KA | | | | | A | E | JFMAMJ JASOND | | JFMAMJ JASOND | | |
| | D 1984 | K | | | | | A | E | JFMAMJ JASON | | JFMAMJ JASOND | | |
| | D 1985 | | | | | | | E | JFMAM | | JFMAM | | |
| LITTLE AMERICA | D 1957 | K | ABCD | JFMAMJ JASOND | ABC | JASOND | ABCDE | | JASOND | A | E JASOND | | |
| LAA | | | | | | | | | | | | | |
| (-78.18 197.80) | | | | | | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LITTLE AMERICA<br>LAA<br>(-78.18 197.80) | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| LOGRONO<br>LGR<br>(042.46 357.50) | D 1957 | KA | ABCD | JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | KA | A | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1963 | KA | A | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | M | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | K | | | | | | | | | | |
| LORING AFB<br>LOB<br>(046.92 291.88) | D 1966 | | A C | OND | | | | | | | | |
| | D 1967 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1968 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1969 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1970 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1971 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1972 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D 1973 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | | A | JFMAMJ JASOND | | | | | | | | |
| LOVO<br>LOV<br>(059.35 17.83) | D 1928 | A | | | | | A E | FMAMJ JASOND | | | | |
| | D 1929 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1930 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1931 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1932 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1933 | A | | | | | A E | JFMAMJ JASOND | | | | |
| | D 1934 | A | | | | | C E | JFMAMJ JASOND | | | | |
| | D 1935 | A | | | | | A C E | JFMAMJ JASOND | | | | |
| | D 1936 | A | | | | | A C E | JFMAMJ JASOND | | | | |
| | D 1937 | A | | | | | A C EI | JFMAMJ JASOND | | | | |
| | D 1938 | A | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1939 | A | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1940 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1941 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1942 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1943 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1944 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOVO | D 1945 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| LOV | D 1946 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (059.35 17.83) | D 1947 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1948 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMAMJ JASO@D | | |
| | D 1949 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1950 | KA | | | | | A EI | JFMAMJ JASOND | AB E | JFMA@J JASOND | | |
| | D 1951 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1952 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1953 | KA | | | | | A C EI | JFMAMJ JASOND | | | | |
| | D 1954 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D 1956 | KA | | | | | A C EI | JFMAMJ JASOND | | | | |
| | D 1957 | KA | ABCD | JASOND | ABC | JASOND | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | E | JFMAMJ JASOND | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | C | JFMAMJ | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | AMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | X 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | | | |
| | X 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | | | |
| | X 1983 | KA | ABCD | JFMAMJ | | | | | | | | |
| | X 1984 | K | | | | | | | | | | |
| | X 1985 | K | | | | | | | | | | |
| LOVOZERO | D 1957 | K | | | ABC | ASOND | | JASOND | | | | |
| LOZ | D 1958 | K | A | MJ JASOND | ABC | JFMAMJ JASOND | A | JFMA | | | | |
| (067.97 035.02) | D 1959 | K | | | ABC | JFMAMJ JASOND | | | | | | |
| | D 1960 | K | | | ABC | JFMAMJ JASOND | | | | | | |
| | D 1964 | | | | ABC | JFMAMJ JASOND | | | | | | |
| | D 1965 | | | | ABC | JFMAMJ JASOND | | | | | | |
| | D 1966 | | | | ABC | JFMAMJ JASOND | | | | | | |
| | D 1967 | | | | ABC | JFMAMJ JASOND | | | | | | |
| | D 1968 | | | | ABC | JFMAMJ JASOND | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOVOZERO | D 1969 | | | | ABC | JFMAMJ JASOND | | | | | | |
| LOZ | D 1970 | | | | ABC | JFMAMJ JASOND | | | | | | |
| (067.97 035.02) | D 1971 | | | | A C | JFMAMJ | | C X | | | | |
| | D 1972 | | | | ABC | JASOND | | | | | | |
| | D 1973 | | | | ABC | AMJ JASOND | | ABC AMJ JASOND | | | | |
| | D 1974 | | | | ABC | JFMAMJ | | BC JFMAMJ | | | | |
| LUANDA | D 1957 | KA | | | | | | ABCD JASOND | | | | |
| LUA | D 1958 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| (-08.92 013.17) | D 1959 | KA | | | | | | | | | | |
| | D 1960 | KA | | | | | | | | | | |
| | D 1961 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1963 | KA | | | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1964 | KA | | | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1966 | KA | | | | | | ABCDE JFMAMJ JASOND | AB E | SO | A | SO |
| | D 1967 | KA | A | SO | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1968 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1969 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1970 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1971 | KA | | | | | | | | | | |
| | D 1972 | KA | | | | | | | | | | |
| | D 1973 | KA | | | | | | | | | | |
| | D 1974 | KA | | | | | | | | | | |
| | D 1975 | KA | | | | | | | | | | |
| | D 1976 | KA | | | | | | | | | | |
| | D 1977 | KA | | | | | | | | | | |
| | D 1978 | KA | | | | | | | | | | |
| | D 1979 | KA | | | | | | | | | | |
| | D 1980 | KA | | | | | | | | | | |
| | D 1981 | KA | | | | | | | | | | |
| | D 1982 | KA | | | | | | | | | | |
| | D 1983 | KA | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| LUKIAPANG | D 1932 | A | | | | | | C JFMAMJ JASOND | | | | |
| LKP | D 1933 | A | | | | | | C JFMAMJ JASOND | | | | |
| (031.32 121.04) | | | | | | | | | | | | |
| LUNPING | D 1965 | KA | AB | JASOND | | | | A I JASOND | | | | |
| LNP | D 1966 | KA | ABCD | JFMAMJ JASOND | | | | A I JFMAMJ JASOND | | | | |
| (025.00 121.17) | D 1967 | KA | ABCD | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | | A C I JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | | A C I JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | | A C I JFMAMJ JASOND | | | | |
| | D 1973 | A | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | | A C I JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | | A C I JFMAMJ JASOND | | | | |
| | D 1975 | A | A C | JFMAMJ JASOND | | | | A C I JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | | A C I JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | | A C I JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LUNPING | D | 1978 | KA | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | A C I | JFMAMJ JASOND | | | | |
| LNP | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| (025.00 121.17) | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D | 1984 | K | A | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | | | | |
| | D | 1985 | K | | | | | A | JF | | | | |
| LVOV | D | 1955 | KA | | | | | | | | | | |
| LVV | D | 1956 | KA | | | | | | | | | | |
| (049.90 23.75) | D | 1957 | KA | ABCD | JASOND | | | ABCD | JASOND | AB | JASOND | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | BCD | JFM | | | BCD | JFM | | | | |
| LWIRO | D | 1958 | KA | A | J JASOND | | | ABCD I | JASOND | | | | |
| LWI | D | 1959 | KA | A | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| ( -2.25 28.80) | D | 1960 | KA | A | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1961 | A | A | J JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1962 | | | | | | C I | JFMAMJ JASOND | | | | |
| | D | 1963 | A | A | MJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1964 | A | ABCD | JFMAMJ JASO | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASO | | |
| | D | 1965 | A | ABCD | MAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | MAMJ JASOND | | |
| | D | 1966 | A | A | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1967 | A | A | JFMAMJ JAS | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1968 | A | A | J MAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1969 | A | A | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1970 | A | A | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR | COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LWIRO<br>LWI<br>( -2.25 28.80) | D | 1971 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | | A | JFMA | | | | | | | | |
| LYCKSELE<br>LYS<br>(064.62 18.77) | D | 1970 | | | | | | | | | | | |
| LYNN LAKE<br>LYN<br>(056.85 258.93) | D | 1977 | | | | | | | | | | A | ASOND* |
| | D | 1978 | | | | | | | | | | A | MAMJ JASOND* |
| | D | 1979 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1980 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1981 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1982 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1983 | | | | | | | | | | A | JFMAMJ JASOND* |
| M BOUR<br>MBO<br>(014.39 343.04) | D | 1952 | KA | | | | | A | MAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1953 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D | 1954 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D | 1955 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | A EI | JFMAMJ JASOND | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JASOND | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | OND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ @ASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JAS | A | JFMAMJ JAS |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | M | A | M |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1973 | A | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1974 | A | A CD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASO@D | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1977 | A | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1978 | A | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | | | | |
| | D | 1979 | A | A CD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1980 | A | A CD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1981 | A | A CD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1982 | KA | A CD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1983 | KA | A CD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | | | | |
| | D | 1984 | | A CD | JFMAMJ JAS | | | A CDE | JFMAMJ JASOND | | | | |
| MACQUARIE ISLAND<br>MCQ<br>(-54.50 158.95) | D | 1950 | A | | | | | A | ASOND | | | | |
| | D | 1951 | A | | | | | A | JFMA | | | | |

| OBSERVATORY | YEAR | COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MACQUARIE ISLAND | D | 1952 | KA | | | | | A | AMJ JASOND | | | | |
| MCQ | D | 1953 | KA | | | | | A | JFMAMJ JASOND | | | | |
| (-54.50 158.95) | D | 1954 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1955 | KA | | | | | | | | | | |
| | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | SOND | A | OND |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A CDE | JFMAMJ JASOND | AB E | JFMAMJ JA | A | JFMAMJ JA |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFM |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | SO | A | SO |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A E | JFMA | AB E | JFMA | A | JFMA |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | | | | | | |
| | D | 1974 | KA | A | JFMAMJ JASOND | A C | JFMAMJ JASOND | | | | | | |
| | D | 1975 | KA | A | JFMAMJ JASOND | A C | JFMAMJ JASOND | | | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | | | | | | |
| | D | 1977 | KA | A | JFMAMJ JASOND | A C | JFMAMJ JASOND | | | | | | |
| | D | 1978 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1981 | KA | | | | | | | | | | |
| | D | 1982 | KA | | | | | | | | | | |
| | D | 1983 | KA | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| MAGADAN | D | 1966 | A | AB | OND | | | AB | OND | | | | |
| MGD | D | 1967 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| (060.12 151.02) | D | 1968 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | AB | JFMAMJ OND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | AB | JFMAMJ OND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | AB | JFMAMJ JAS | | | AB | JFMAMJ JASOND | | | | |
| | D | 1973 | A | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1974 | A | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAGADAN<br>MGD<br>( 60.12 151.02) | D | 1984 | K | | | | | | | | | | |
| MAGALLANES<br>MGS<br>(-53.20 289.10) | D | 1933 | | | | | | A | JFMAMJ JA | | | | |
| MAJURO | D | 1964 | A | ABCD | ASOND | | | | | | | | |
| MJR | D | 1965 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| (007.08 171.38) | D | 1966 | A | ABCD | JF | | | | | | | | |
| MALIYE KARMAKULY | D | 1882 | | | | | | C | OND | | | | |
| MKL | D | 1883 | | | | | | C | JFMAMJ JA | | | | |
| (072.30 052.50) | D | 1977 | | B D | J JASOND | | | | | | | | |
| | D | 1978 | | B D | JFMAMJ JAS ND | | | | | | | | |
| MANHAY | D | 1932 | A | | | | | A | SOND | | | | |
| MAB | D | 1933 | A | | | | | A | JFMAMJ JA | | | | |
| (050.30 5.68) | D | 1940 | KA | | | | | | | | | | |
| | D | 1941 | KA | | | | | | | | | | |
| | D | 1942 | KA | | | | | | | | | | |
| | D | 1943 | K | | | | | | | | | | |
| | D | 1947 | KA | | | | | | | | | | |
| | D | 1948 | KA | | | | | | | | | | |
| | D | 1949 | KA | | | | | | | | | | |
| | D | 1950 | KA | | | | | | | | | | |
| | D | 1951 | KA | | | | | | | | | | |
| | D | 1952 | KA | | | | | | | | | | |
| | D | 1953 | KA | | | | | | | | | | |
| | D | 1954 | KA | | | | | | | | | | |
| | D | 1955 | KA | | | | | | | | | | |
| | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | | | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1959 | KA | | | | | | | | | | |
| | D | 1960 | KA | | | | | | | | | | |
| | D | 1961 | KA | | | | | | | | | | |
| | D | 1962 | KA | | | | | | | | | | |
| | D | 1963 | KA | | | | | | | | | | |
| | D | 1964 | KA | | | | | | | | | | |
| | D | 1965 | KA | | | | | | | | | | |
| | D | 1966 | KA | | | | | | | | | | |
| | D | 1967 | KA | | | | | | | | | | |
| | D | 1968 | KA | | | | | | | | | | |
| | D | 1969 | KA | | | | | | | | | | |
| | D | 1970 | KA | | | | | | | | | | |
| | D | 1971 | KA | | | | | | | | | | |
| | D | 1972 | KA | | | | | | | | | | |
| MANILA<br>MAN<br>(014.58 120.98) | D | 1900 | A | | | | | A | JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MANILA | D 1901 | A | | | | | A | JFMAMJ JASOND | | | | |
| MAN | D 1902 | A | | | | | A | JFMAMJ JASOND | | | | |
| (014.58 120.98) | D 1903 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1904 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1983 | K | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| MAPUTO | D 1964 | KA | | | | | | | | | | |
| LMM | D 1965 | KA | A | JFMAMJ JASOND | | | | | | | | |
| (-25.92 32.58) | D 1966 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1967 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1968 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1969 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1970 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1971 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1972 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1973 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1975 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1977 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D 1980 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1981 | KA | A | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1982 | KA | A | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1983 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1984 | K | | | | | A | JFMA | | | | |
| MARION ISLAND | D 1973 | A | | | | | ABCD | JASOND | | | | |
| MRN | D 1974 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| (-46.88 37.85) | D 1975 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | A | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1977 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | | | | | | A | JASOND | | | | |
| | D 1979 | | | | | | A | JFMAMJ JASOND | | | | |
| | D 1980 | | | | | | A E | JFMAMJ JASOND | | | | |
| MARTIN DE VIVIES | D 1981 | A | | | | | B D | AMJ JASOND | | | | |
| AMS | D 1982 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| (-37.83 77.57) | D 1983 | A | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| MAURITIUS | D 1916 | A | | | | | A | JFMAMJ JASOND | | | | |
| MRI | D 1917 | A | | | | | A | JFMAMJ JASOND | | | | |
| (-20.09 57.55) | D 1918 | A | | | | | A | JFMAMJ JASO | | | | |
| | D 1919 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1920 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1921 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1922 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1923 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1924 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1925 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1926 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1927 | A | | | | | A | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAURITIUS | D | 1928 | A | | | | | A | JFMAMJ JASOND | | | | |
| MRI | D | 1929 | A | | | | | A | JFMAMJ JASOND | | | | |
| (-20.09 57.55) | D | 1930 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1931 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1932 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1933 | A | | | | | A C | JFMAMJ JAS | | | | |
| | D | 1934 | A | | | | | A | J JASOND | | | | |
| | D | 1935 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1936 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1937 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1938 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1943 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1944 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1945 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1946 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1947 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1948 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1949 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1950 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | | | | | | | | | | |
| | D | 1958 | KA | | | | | | | | | | |
| | D | 1959 | KA | | | | | | | | | | |
| | D | 1960 | KA | | | | | | | | | | |
| MAWSON | D | 1952 | | | | | | A | AMJ JASOND | | | | |
| MAW | D | 1953 | | | | | | A | JFMAMJ JASOND | | | | |
| (-67.61 62.88) | D | 1954 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1955 | A | | | | | A C | ASOND | | | | |
| | D | 1956 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1957 | KAQ | ABCD | JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1958 | KAQ | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A JFM | SOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | A E | J | AB E | J | A | J |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAWSON | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| MAW | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| (-67.61 62.88) | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1981 | KA | AB D | JFMAMJ JASOND | | | | | | | | |
| | D | 1982 | KA | A | J | | | | | | | | |
| | D | 1983 | KA | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| MCMURDO | D | 1981 | | C | FM | | | | | | | | |
| MCM | | | | | | | | | | | | | |
| (-77.85 166.70) | | | | | | | | | | | | | |
| MEANOOK | D | 1916 | A | A | D | | | | | | | | |
| MEA | D | 1917 | A | A | JFMAMJ JASOND | | | | | | | | |
| (054.62 246.67) | D | 1918 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1919 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1920 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1921 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1922 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1923 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1924 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1925 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1926 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1927 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1928 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1929 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1930 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1931 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1932 | A | A | JFMAMJ JASOND | | | | A JFMAMJ JASOND | | | | |
| | D | 1933 | A | | | | | | A JFMAMJ JASOND | | | | |
| | D | 1934 | A | | | | | | ABC JFMAMJ JASOND | | | | |
| | D | 1935 | A | | | | | | ABC JFMAMJ JASOND | | | | |
| | D | 1936 | A | | | | | | ABC JFMAMJ JASOND | | | | |
| | D | 1937 | A | | | | | | ABC JFMAMJ JASOND | | | | |
| | D | 1938 | A | | | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1939 | KA | | | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1940 | KA | | | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1941 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1942 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1943 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1944 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1945 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1946 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1947 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1948 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1949 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1950 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1951 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1952 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1953 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1954 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEANOOK | D 1955 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| MEA | D 1956 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| (054.62 246.67) | D 1957 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1959 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1960 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1961 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1962 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABC EI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J SOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J JAS |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | ND* |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1981 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1982 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1983 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1984 | K | ABCD | JFMAMJ JAS | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1985 | K | | | | | | | | | | |
| MELVILLE AFB | D 1966 | | ABC | | | | | | | | | |
| MEV | D 1967 | | ABC | | | | | | | | | |
| (053.28 299.47) | D 1968 | | ABC | | | | | | | | | |
| | D 1969 | | ABC | | | | | | | | | |
| | D 1970 | | ABC | | | | | | | | | |
| | D 1971 | | ABC | | | | | | | | | |
| | D 1972 | | ABC | | | | | | | | | |
| | D 1973 | | A | J | | | | | | | | |
| | D 1974 | | A | JFMAMJ JASOND | | | | | | | | |
| MEMAMBETSU | D 1952 | KA | | | | | | | | | | |
| MMB | D 1953 | KA | | | | | | | | | | |
| (043.91 144.19) | D 1954 | KA | | | | | | | | | | |
| | D 1955 | KA | | | | | | | | | | |
| | D 1956 | KA | | | | | | | | | | |
| | D 1957 | KA | ABCD | JASOND | ABC | JASOND | ABCD I | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEMAMBETSU | D | 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| MMB | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J SOND |
| (043.91 144.19) | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JAS * |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1984 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1985 | K | | | | | | | | | | |
| MIDWAY | D | 1964 | A | ABCD | MJ JASOND | | | | | | | | |
| MDY | D | 1965 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| (028.21 182.62) | D | 1966 | A | A | J | | | | | | | | |
| | D | 1978 | | | | | | | | | | A | MAMJ JASOND* |
| | D | 1979 | | | | | | | | | | A | JFMAM JASOND* |
| | D | 1980 | | | | | | | | | | A | JFMAM J * |
| | D | 1981 | | | | | | | | | | A | FMA * |
| MINSK | D | 1958 | | | | C | MJ | | | | | | |
| MNK | D | 1959 | | B | OND | | | | | | | | |
| (054.50 27.88) | D | 1960 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1961 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | B | JFMAM | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MINSK | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| MNK | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (054.50 27.88) | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | K | ABCD | JFMAMJ JASOND | A C | JFM JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFMAMJ JAS | | | ABCD | JFMAMJ JAS | | | | |
| MIRNY | D | 1956 | KA | B | JASOND | | | A | JASOND | | | | |
| MIR | D | 1957 | KA | ABCD | JFMAMJ JASOND | ABC | JASOND | ABCD | JFMAMJ JASOND | | | | |
| (-66.55 93.02) | D | 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB I | M | A | M |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | SO | A | SO |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | B | MAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | B | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | AB | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1983 | K | AB | JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1984 | K | | | | | | | | | | |
| MISALLAT | D | 1957 | | | | | | A | JFMAMJ JASOND | | | | |
| MLT | D | 1958 | | | | | | A | JFMAMJ JASOND | | | | |
| (029.52 30.89) | D | 1959 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | A | AMJ JASOND | | | ABCD | AMJ JASOND | | | | |
| | D | 1961 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | J SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | A | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | A | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | A | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MISALLAT | D | 1972 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| MLT | D | 1973 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (029.52 30.89) | D | 1974 | KA | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1975 | K | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1976 | K | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1977 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | A | AB | JFMA | | | A | JFMAMJ JASOND | | | | |
| | D | 1980 | A | | | | | A | JFMAMJ JASOND | | | | |
| MIZUSAWA | D | 1969 | A | | | | | A | AMJ JASOND | | | | |
| MIZ | D | 1970 | A | | | | | A | JFMAMJ JASOND | | | | |
| (039.01 141.08) | D | 1971 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1972 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1973 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1974 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1975 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1976 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1977 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1978 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1979 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1980 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1981 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1982 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| MOCA | D | 1958 | KA | ABCD | OND | | | ABCD | JFMAMJ JASOND | | | | |
| MFP | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (003.34 8.66) | D | 1960 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | A C | JASOND | ABC E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JAS |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | A C | JAS | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | SO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ | A | JF AMJ |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JASO | A | JASO |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASON | | | ABCD | JFMAMJ JASOND | | | | |
| MODIIM | D | 1975 | A | A D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| MOD | | | | | | | | | | | | | |
| ( 31.93 34.98) | | | | | | | | | | | | | |
| MOGADISCIO | D | 1932 | | | | | | A | ASOND | | | | |
| MOG | D | 1933 | | | | | | A | JFMAMJ J | | | | |
| (002.03 045.35) | | | | | | | | | | | | | |
| MOLODEZHNAYA | D | 1966 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| MOL | D | 1967 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| (-67.67 45.85) | D | 1968 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1969 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1970 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1971 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOLODEZHNAYA | D | 1972 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| MOL | D | 1973 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| (-67.67 45.85) | D | 1974 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1975 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1980 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1981 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1982 | A | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1983 | K | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1984 | K | | | | | | | | | | |
| MONTE CAPELLINO | D | 1963 | | AB D | JFMAMJ JASOND | | | | | | | | |
| MCP | D | 1964 | | AB D | JFMAMJ JASOND | | | | | | | | |
| (044.55 8.96) | | | | | | | | | | | | | |
| MOSCOW | D | 1945 | K | | | | | | | | | | |
| MOS | D | 1946 | KA | | | | | | | | | | |
| (055.48 37.31) | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCD | JASOND | AB | JASOND | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFMAMJ JASO | | | ABCD | JFMAMJ JASO | | | | |
| MOULD BAY | D | 1961 | | AB D | D | | | | | | | | |
| MBC | D | 1962 | A | AB | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | ASOND | | |
| (076.20 240.60) | | | | | | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOULD BAY | D 1963 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| MBC | D 1964 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| (076.20 240.60) | D 1965 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JF SO |
| | D 1968 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASO |
| | D 1969 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J JASO |
| | D 1970 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1971 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1973 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | A C E | JFMAMJ JASOND | | |
| | D 1974 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | X 1977 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | X 1978 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | MAMJ JA | A | MAMJ JA * |
| | X 1979 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | X 1980 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1981 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1982 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1983 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1984 | | ABCD | JFMAMJ JAS | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| MT WILSON | D 1926 | | A | JFMAMJ JASOND | | | | | | | | |
| MWC | D 1927 | | A | JFMAMJ JASOND | | | | | | | | |
| (034.22 241.93) | D 1928 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1929 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1930 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1931 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1932 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1933 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1934 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1935 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1936 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1937 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1938 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1939 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1940 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1941 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1942 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1943 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1944 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1945 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1946 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1947 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1948 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1949 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1950 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1951 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1952 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1953 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1954 | | A | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MT WILSON | D | 1955 | | A | JFMAMJ JASOND | | | | | | | | |
| MWC | D | 1956 | | A | JFMAMJ JASOND | | | | | | | | |
| (034.22 241.93) | D | 1957 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1958 | | A | JFMAMJ JASOND | | | | | | | | |
| MUNTINLUPA | D | 1953 | A | | | | | | A JFMAM | | | | |
| MUT | D | 1954 | A | | | | | | A JFMAMJ JASOND | | | | |
| (014.38 121.02) | D | 1955 | A | | | | | | A JFMAMJ JASOND | | | | |
| | D | 1956 | A | | | | | | A JFMAMJ JASOND | | | | |
| | D | 1957 | A | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1958 | A | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1959 | A | BCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1960 | A | BCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1961 | A | D | JFMAMJ JASOND | | | | A D JFMAMJ JASOND | | | | |
| | D | 1962 | A | ABCD | JFMAMJ JASOND | | | | A D JFMAMJ JASOND | | | | |
| | D | 1963 | A | ABCD | JFMAMJ JASOND | | | | A E JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB | EI JFMAMJ JASOND | A | SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | | AB E JFMAMJ JASOND | AB | EI JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | | A E JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | | A E JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | | A E JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | | A E JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | | A E JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | | A E JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D | 1972 | KA | | | | | | A E JFMAMJ JASOND | ABC | EI JFMAMJ JASOND | | |
| | D | 1973 | A | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1974 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1975 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1976 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1977 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1978 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1979 | KA | | | | | | A D JFMAMJ JASOND | | | | |
| | D | 1980 | KA | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1981 | KA | | | | | | A JFMAMJ | | | | |
| | D | 1982 | KA | | | | | | | | | | |
| | D | 1983 | K | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | |
| MURCHISON BAY | D | 1957 | Q | ABCD | ASOND | ABC | SOND | | ABCD ASOND | | | | |
| MUB | D | 1958 | Q | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD JFMAMJ JASOND | | | | |
| (080.50 018.25) | D | 1959 | Q | ABCD | JFMAMJ J | | | | ABCD JFMAMJ J | | | | |
| MURMANSK | D | 1957 | K | ABCD | JASOND | | | | A JASOND | | | | |
| MMK | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| (068.95 33.05) | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| (068.25 33.08) | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB | EI JFMAMJ JASOND | A | SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB | EI JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB | EI JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MURMANSK | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMA | A | JFMA |
| MMK | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (068.25 33.08) | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | | | | | | | | | | |
| | D 1982 | K | | | | | | | | | | |
| | D 1983 | K | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| NAGYCENK | D 1958 | K | | | | | | | | | | |
| NCK | D 1959 | K | | | | | | | | | | |
| (047.63 16.72) | D 1960 | | | | | | | | | | | |
| | D 1961 | KA | | | | | | | | | | |
| | D 1962 | KA | | | | | | | | | | |
| | D 1963 | KA | | | | | | | | | | |
| | D 1964 | KA | A CD | JFMAMJ JASOND | | | | | | | | |
| | D 1965 | KA | A CD | JFMAMJ JASOND | | | | | | | | |
| | D 1966 | KA | | | | | | | | | | |
| | D 1967 | KA | | | | | | | | | | |
| | D 1968 | KA | | | | | | | | | | |
| | D 1969 | KA | | | | | | | | | | |
| | D 1970 | KA | | | | | | | | | | |
| | D 1971 | KA | | | | | | | | | | |
| | D 1972 | KA | | | | | | | | | | |
| | D 1973 | KA | | | | | | | | | | |
| | D 1974 | KA | | | | | | | | | | |
| | D 1975 | KA | | | | | | | | | | |
| | D 1976 | KA | | | | | | | | | | |
| | D 1977 | KA | | | | | | | | | | |
| | D 1978 | KA | | | | | | | | | | |
| NAIROBI | D 1964 | A | ABCD | FMAMJ JASOND | | | ABCDE | FMAMJ JASOND | AB EI | SOND | A | SOND |
| NAI | D 1965 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| ( -1.33 36.82) | D 1966 | A | ABCD | JFM | | | ABCDE | JFM M | AB EI | JFM | A | JFM |
| | D 1967 | A | AB | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | MAM | A | AM |
| | D 1968 | A | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1969 | A | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1970 | A | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | A | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | A | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | A | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | A | AB | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1975 | A | AB | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1976 | A | ABCD | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAIROBI | D 1977 | A | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| NAI | | | | | | | | | | | | |
| ( -1.33 36.82) | D 1979 | | A | D | | | A | JFMAMJ JASOND | | | | |
| | D 1980 | | A | J AM | | | A | JFMAMJ JASOND | | | | |
| NAMPULA | D 1982 | | | | | | A | JFMAMJ JASOND | | | | |
| NMP | D 1983 | | | | | | A | JFMAMJ JASOND | | | | |
| (-15.13 39.27) | D 1984 | | | | | | A | JFMAMJ JASO | | | | |
| NANTES | D 1932 | A | | | | | C | JFMAMJ JASOND | | | | |
| NTS | D 1933 | A | | | | | C | JFMAMJ JASOND | | | | |
| (047.25 358.44) | | | | | | | | | | | | |
| | D 1951 | KA | | | | | | | | | | |
| | D 1952 | KA | | | | | | | | | | |
| | D 1953 | KA | | | | | | | | | | |
| | D 1954 | KA | | | | | | | | | | |
| | D 1955 | KA | | | | | | | | | | |
| | D 1956 | KA | | | | | | | | | | |
| | D 1957 | KA | | | | | | | | | | |
| | D 1958 | KA | | | | | | | | | | |
| | D 1959 | K | | | | | | | | | | |
| NARSSARSSUAQ | D 1968 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| NAQ | D 1969 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (061.10 314.80) | D 1970 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1971 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1972 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1973 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1974 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1975 | A | ABCD | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1976 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1977 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | A | ABCD | JFMAMJ JASOND | | | | | | | A | J JASOND* |
| | D 1980 | A | ABCD | JFMAMJ JASOND | | | | | | | A | JFMAMJ JASOND* |
| | D 1981 | A | ABCD | JFMAMJ JASOND | | | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| | D 1982 | A | ABCD | JFMAMJ JASOND | | | D | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| | D 1983 | A | ABCD | JFMAMJ JASOND | | | | | | | A | JFMAMJ JASOND* |
| | D 1984 | A | ABCD | JFMAMJ JASON | | | | | | | | |
| NEW AALESUND | D 1969 | | D | S | | | | | | | | |
| NAL | | | | | | | | | | | | |
| (078.92 011.93) | D 1974 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1975 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1977 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1980 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1981 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1982 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1983 | | A CD | JFMAMJ JASOND | | | | | | | | |
| | D 1984 | | A CD | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NEWPORT | D 1966 | KA | ABCD | AMJ JASOND | | | ABCDE | MAMJ JASOND | AB EI | MAMJ JASOND | A | AMJ JASOND |
| NEW | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (048.26 242.88) | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JA | A | SOND | A | SOND* |
| | D 1983 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| NIEMEGK | D 1917 | | | | | | A C | JFMAMJ JASOND | | | | |
| NGK | D 1918 | | | | | | A C | JFMAMJ JASOND | | | | |
| (052.07 12.68) | D 1919 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1920 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1921 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1922 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1923 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1924 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1925 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1926 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1927 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1928 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1929 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1930 | | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1931 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1932 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1933 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1934 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1935 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1936 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1937 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1938 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1939 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1940 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1941 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1942 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1943 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1944 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1945 | KA | | | | | | | | | | |
| | D 1946 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1947 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1948 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1949 | KA | | | | | A I | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY | MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NIEMEGK | D | 1950 | KA | | | | | A | I | JFMAMJ JASOND | | | | |
| NGK | D | 1951 | KA | | | | | A | I | JFMAMJ JASOND | | | | |
| (052.07 12.68) | D | 1952 | KA | | | | | A C | I | JFMAMJ JASOND | | | | |
| | D | 1953 | KA | | | | | A | I | JFMAMJ JASOND | | | | |
| | D | 1954 | KA | | | | | A C | I | JFMAMJ JASOND | | | | |
| | D | 1955 | KA | | | | | A C | I | JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | A C | I | JFMAMJ JASOND | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | B | JFMAMJ JASOND | | | ABC | I | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | B | JFMAMJ JASOND | | | ABCD | | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | B | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | B | JFMAMJ JASOND | | | ABC | I | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | I | JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I | JFMAMJ JASOND | | | | |
| | X | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | | JFMAMJ JASOND | | | | |
| | X | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | | JFMAMJ JASOND | | | | |
| | X | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | | JFMAMJ JASOND | | | | |
| | X | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | | JFMAMJ JASOND | | | | |
| | X | 1984 | K | ABCD | JFMAMJ JAS | | | ABCD | | JFMAMJ JASOND | | | | |
| NITSANIM | D | 1963 | A | | | | | ABCD | | JFMAMJ JASOND | | | | |
| NSM | | | | | | | | | | | | | | |
| (031.73 34.60) | D | 1967 | KA | | | | | A D | | JFMAMJ JASOND | | | | |
| | D | 1968 | | | | | | A D | | JFMAMJ JASOND | | | | |
| NORD | D | 1969 | | | | | | AB D | | ASOND | | | | |
| NRD | D | 1970 | | | | | | AB D | | JFMAMJ JASOND | | | | |
| (081.60 343.24) | D | 1971 | | | | | | AB D | | JFMAMJ JASOND | | | | |
| | D | 1972 | | | | | | AB D | | JFM | | | | |
| NORILSK | D | 1973 | | AB | ND | | | | | | | | | |
| NOK | D | 1974 | | ABCD | JFMAMJ JASOND | | | | | | | | | |
| (069.40 088.10) | D | 1975 | | ABCD | JFMAMJ J | | | | | | | | | |
| NORMAN WELLS | D | 1977 | | | | | | | | | | | A | JASOND* |
| NOW | D | 1978 | | | | | | | | | | | A | JFMAMJ JASOND* |
| (064.90 234.50) | D | 1979 | | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1980 | | | | | | | | | | | A | JFMAMJ JASON * |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORMAN WELLS | D 1981 | | | | | | | | | | A | JFMAMJ JASOND* |
| NOW | D 1982 | | | | | | | | | | A | JFMAMJ JASOND* |
| (064.90 234.50) | D 1983 | | | | | | | | | | A | JFMAMJ JASOND* |
| NORTH POLE 6 | D 1957 | | ABCD | JASOND | | | ABCD | JASOND | | | | |
| NPF | D 1958 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (084.00 094.00) | D 1959 | K | ABCD | JFMAMJ JAS | | | ABCD | JFMAMJ JAS | | | | |
| NORTH POLE 7 | D 1957 | | ABCD | JASOND | | | ABCD | JASOND | | | | |
| NPG | D 1958 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (085.00 268.12) | D 1959 | | ABCD | JFM | | | ABCD | JFM | | | | |
| NORTH POLE 8 | D 1959 | K | ABCD | MJ JASOND | | | ABCD | MJ JASOND | | | | |
| NPH | D 1960 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (077.00 189.00) | D 1961 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | | ABCD | JF | | | ABCD | JF | | | | |
| NORTH POLE 10 | D 1961 | | A CD | ND | | | A CD | ND | | | | |
| NPJ | D 1962 | | A CD | JFMAM | | | A CD | JFMAM | | | | |
| (077.00 166.38) | | | | | | | | | | | | |
| NORTH POLE 12 | D 1963 | K | A CD | MJ JASOND | | | A CD | MJ JASOND | | | | |
| NPL | D 1964 | K | A CD | JFMA | | | A CD | JFMA | | | | |
| (079.00 187.00) | | | | | | | | | | | | |
| NORTH POLE 13 | D 1964 | | A CD | MJ JASOND | | | A CD | MJ JASOND | | | | |
| NPM | D 1965 | | A CD | JFMAMJ JASOND | | | CD | JFMAMJ JASOND | | | | |
| (081.00 165.00) | | | | | | | | | | | | |
| NORTHWAY | D 1957 | | ABCD | AMJ JASOND | | | ABCD | AMJ JASOND | | | | |
| NRW | D 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (063.02 218.20) | D 1959 | | B | J | | | | | | | | |
| NORUSUND | D 1978 | | | | | | BC | JFMAMJ JASOND | | | | |
| NOR | D 1979 | | | | | | BC | JFMAMJ JASOND | | | | |
| (077.00 015.55) | | | | | | | | | | | | |
| NORWAY HOUSE | D 1973 | | A | MJ JASOND | | | | | | | | |
| NHO | D 1974 | | ABC | JFMAMJ JASOND | | | | | | | | |
| (053.98 262.17) | D 1975 | | A | J | | | | | | | | |
| | D 1976 | | ABC | F N | | | | | | | | |
| NORWAY STATION | D 1960 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| NWS | D 1961 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| (-70.50 357.47) | D 1962 | A | | | | | A D | JF | | | | |
| NOVOKAZALINSK | D 1965 | | | | | | | | | | | |
| NKK | D 1966 | K | | | | | | | | | | |
| (045.80 62.10) | D 1967 | K | | | | | | | | | | |
| | D 1968 | K | | | | | | | | | | |
| | D 1969 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1970 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | K | ABCD | JFMAMJ JASOND | | | ABCD | ASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOVOKAZALINSK | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| NKK | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (045.80 62.10) | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFMAMJ JASO | | | ABCD | JFMAMJ JASO | | | | |
| NOVOLAZAREVSKAYA | D | 1961 | KA | ABCD | FMAMJ JASOND | | | ABCD | FMAMJ JASOND | ABCD | | | |
| NVL | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | ABCD | | | |
| (-70.77 11.83) | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | SO | A | SO |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1980 | KA | AB D | JFMAMJ JASOND | | | | | | | | |
| | D | 1981 | KA | AB D | JFMAMJ JASOND | | | | | | | | |
| | D | 1982 | A | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1983 | K | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| NOVOSIBIRSK | D | 1967 | A | AB | JFMAMJ JAS | | | AB | JFMAMJ JAS | | | | |
| NVS | D | 1968 | A | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| (055.03 82.90) | D | 1969 | A | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1970 | A | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1971 | A | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFMAMJ JASO | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMTO | D 1974 | | ABCD | FMAMJ JASOND | | | | | | | | |
| NMT | D 1975 | | B | JFMAMJ JASOND | | | | | | | | |
| (063.50 071.40) | D 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1977 | | B | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| NURMIJARVI | D 1953 | KA | | | | | | A C E JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| NUR | D 1954 | KA | | | | | | A C E JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (060.51 24.66) | D 1955 | KA | | | | | | A C E JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1956 | KA | | | | | | A C EI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1957 | KA | ABCD | JASOND | ABC | JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J SOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ SO |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | M |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | C | JF | | ABCD JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | X 1982 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | X 1983 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | X 1984 | K | ABCD | JFMAMJ JASON | | | | ABCD JFMAMJ JASON | | | | |
| | X 1985 | K | A | JF | | | | A JF | | | | |
| NYDA | D 1974 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| NDA | D 1975 | | B | JFMAMJ JASOND | | | | | | | | |
| (066.60 073.00) | D 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1977 | | B | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| O GYALLA | D 1905 | A | | | | | | A JFMAMJ JASOND | | | | |
| OGY | D 1906 | A | | | | | | A JFMAMJ JASOND | | | | |
| (047.88 18.19) | D 1907 | A | | | | | | A JFMAMJ JASOND | | | | |
| | D 1908 | A | | | | | | A JFMAMJ JASOND | | | | |
| | D 1909 | A | | | | | | A JFMAMJ JASOND | | | | |
| | D 1910 | A | | | | | | A JFMAMJ JASOND | | | | |
| | D 1911 | A | | | | | | A JFMAMJ JASOND | | | | |
| | D 1912 | A | | | | | | A JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O GYALLA | D | 1913 | A | | | | | A | JFMAMJ JASOND | | | | |
| OGY | | | | | | | | | | | | | |
| (047.88 18.19) | D | 1916 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1917 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1932 | | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1933 | | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1939 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1940 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1941 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1942 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1943 | | | | | | A | JFMAMJ JASOND | | | | |
| OASIS | D | 1957 | KA | ABCD | J JASOND | | | ABCD | J JASOND | | | | |
| OAS | D | 1958 | KA | ABCD | JFMAMJ JASON | | | ABCD | JFMAMJ JASON | | | | |
| (-66.30 100.72) | | | | | | | | | | | | | |
| ODESSA | D | 1955 | KA | | | | | | | | | | |
| ODE | D | 1956 | KA | | | | | | | | | | |
| (046.78 30.88) | D | 1957 | KA | ABCD | JASOND | | | AB D | JASOND | AB | JFMAMJ JASOND | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | AMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASO D |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JF AMJ |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JASO |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFMAMJ JAS | | | ABCD | JFMAMJ JAS | | | | |
| ONAGAWA | D | 1957 | K | | | ABC | JASOND | | | | | | |
| ONW | D | 1958 | K | | | ABC | JFMAMJ JASOND | | | | | | |
| (038.43 141.47) | D | 1959 | K | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ORCADAS DEL SUR | D | 1969 | K | | | | | | | | | | |
| ORC | D | 1970 | K | | | | | | | | | | |
| (-60.73 315.22) | D | 1971 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | | AB D | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | | A | JFMAMJ JASOND | | | | | | | | |
| OTTAWA | D | 1968 | A | ABCD | J JASOND | | | | ABCDEI JFMAMJ JASOND | AB E | JASOND | | |
| OTT | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (045.40 284.45) | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB E | JFM SOND | A | SOND* |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1978 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1979 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1980 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1981 | KA | ABCD | JFMAMJ JASOND | | | | A JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1982 | KA | ABCD | JFMAMJ JASOND | | | | A JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1983 | KA | ABCD | JFMAMJ JASOND | | | | A JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1984 | K | ABCD | JFMAMJ JAS | | | | A JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1985 | K | | | | | | | | | | |
| P. TUNGUSKA | D | 1969 | A | AB | JFMAMJ JASOND | | | | AB JFMAMJ JASOND | | | | |
| POD | D | 1970 | A | AB | JFMAMJ JASOND | | | | AB JFMAMJ JASOND | | | | |
| (061.60 90.00) | D | 1971 | A | AB | JFMAMJ JASOND | | | | AB JFMAMJ JASOND | | | | |
| | D | 1972 | A | AB | JFMAMJ JASOND | | | | AB JFMAMJ JASOND | | | | |
| | D | 1973 | A | AB | JFMA JASOND | | | | AB JFMAMJ JASOND | | | | |
| | D | 1974 | A | AB | JFMAMJ JAS | | | | AB JFMAMJ JAS | | | | |
| | D | 1975 | KA | ABCD | AMJ JASOND | | | | ABCD AMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFMAMJ AS | | | | ABCD JFMAMJ AS | | | | |
| PALMYRA ISLAND | D | 1957 | | ABCD | OND | | | | ABCD OND | | | | |
| PAI | D | 1958 | | BCD | JFMAMJ JA | | | | ABCD JFMAMJ JA | | | A | JFMAMJ JA |
| (005.88 197.92) | | | | | | | | | | | | | |
| PAMATAI | D | 1966 | A | ABCD | JFMAMJ JASOND | | | | A E M | A | JFMAMJ JASOND | A | M |
| PPT | | | | | | | | | | | | | |
| (-17.57 210.43) | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | | A E JFMA | A E | JFMAMJ JASOND | A | JFMA |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | | A E MJ JAS | A E | JFMAMJ JASOND | A | J JAS |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFM |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | | ABCDE JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY | MEDIUM | WDC | HOURLY VALUES ON | TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PAMATAI | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | A E | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| PPT | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | A E | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| (-17.57 210.43) | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | A E | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | A E | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ | JASOND | A E | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | A C E | JFMAMJ | JASOND | | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ | JASOND | | | | A | MAMJ JASOND* |
| | D | 1979 | KA | A CD | JFMAMJ JASOND | | | A CDE | JFMAMJ | JASOND | AB E | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D | 1980 | KA | A CD | JFMAMJ JASOND | | | A CDE | JFMAMJ | JASOND | AB E | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ | JASOND | A E | JFMAMJ | JASOND | A | JFMAMJ JASOND |
| | D | 1982 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | | | | A | JFMA * |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | | | | | |
| | D | 1984 | | A CD | JFMAMJ JAS | | | A CDE | JFMAMJ | JASOND | | | | | |
| PANAGYURISHTE | D | 1956 | A | C | JFMAMJ JASOND | | | ABC I | JFMAMJ | JASOND | | | | | |
| PAG | D | 1957 | KA | ABCD | JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| (042.52 24.18) | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1961 | KA | | | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1962 | KA | | | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1963 | KA | | | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1964 | KA | B | JFMAMJ JASOND | | | ABCDEI | JFMAMJ | JASOND | AB E | JFMAMJ | JASOND | | |
| | D | 1965 | KA | | | | | ABCDEI | JFMAMJ | JASOND | AB E | JFMAMJ | JASOND | | |
| | D | 1966 | KA | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1967 | KA | B | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1968 | KA | B | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1969 | KA | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1970 | KA | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1971 | KA | | | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1972 | KA | | | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1973 | A | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1974 | KA | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1975 | KA | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | | | | | |
| | D | 1976 | KA | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1977 | KA | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1978 | A | AB | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1979 | A | AB | JFMAMJ JASOND | | | | | | | | | | |
| | D | 1980 | A | AB | JFMAMJ JASOND | | | | | | | | | | |
| | D | 1981 | A | C | JFMAMJ JASOND | | | | | | | | | | |
| PARAMARIBO | D | 1957 | KA | ABCD | JASOND | ABC | JASOND | | | | | | | | |
| PAB | D | 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD I | JFMAMJ | JASOND | | | | | |
| (005.81 304.78) | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1961 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1962 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ | JASOND | | | | | |
| | D | 1963 | A | ABCD | JFMAMJ JASOND | | | A C I | JFMAMJ | JASOND | | | | | |
| | D | 1964 | A | ABCD | JFMAMJ JASOND | ABC | JASOND | ABCDEI | JFMAMJ | JASOND | AB E | JFMAMJ | JASOND | A | J SOND |
| | D | 1965 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ | JASOND | AB E | JFMAMJ | @ASOND | A | JFMAMJ JASOND |
| | D | 1966 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ | JASOND | AB E | JFMAMJ | JASOND | A | JFMAMJ J ND |
| | D | 1967 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | | ASOND | A | ASO D |
| | D | 1968 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | JFMAMJ | JASON | A | JF AMJ |

| OBSERVATORY | COMP | YEAR | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PARAMARIBO | D | 1969 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JASO | A | JASO |
| PAB | D | 1970 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (005.81 304.78) | D | 1971 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | A | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | | ABCD | JFMAMJ | | | ABCD | JFMAMJ | | | | |
| PELLY BAY | D | 1977 | | | | | | | | | | A | JASOND* |
| PEB | D | 1978 | | | | | | | | | | A | JF AMJ JASOND* |
| (068.53 270.48) | D | 1979 | | | | | | | | | | A | JFM * |
| PENANG | D | 1976 | A | | | | | ABCD | MJ JASOND | | | | |
| PNN | D | 1977 | | | | | | A CD | JFMAMJ JASOND | | | | |
| (004.47 100.15) | | | | | | | | | | | | | |
| | D | 1979 | | | | | | A C | SOND | | | | |
| | D | 1980 | | | | | | A C | JF | | | | |
| PENDELI | D | 1959 | KA | | | | | A | JFMAMJ JASOND | | | | |
| PEG | D | 1960 | KA | | | | | A | JFMAMJ JASOND | | | | |
| (038.05 23.86) | D | 1961 | K | A | SOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1962 | K | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1963 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1964 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1965 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1966 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1967 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1968 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1971 | K | A CD | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | K | A C | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1980 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1981 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1982 | K | | | | | | | | | | |
| | D | 1983 | K | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| PETROPAVLOVSK | D | 1957 | K | | | ABC | ASOND | A | ASOND | | | | |
| PET | D | 1958 | K | | | ABC | JFMAMJ JASOND | A | JFMA JA | | | | |
| (052.90 158.43) | D | 1959 | K | | | ABC | JFMAMJ JASOND | A | JFMAMJ JASOND | | | | |
| | D | 1960 | K | | | ABC | JFMAMJ JASOND | A | JFMAMJ JASOND | | | | |
| | D | 1961 | K | | | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1962 | K | | | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1963 | K | | | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1964 | K | | | ABC | JFMAMJ JASOND | | | | | | |
| | D | 1965 | K | | | ABC | JFMA | | | | | | |
| | D | 1966 | K | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PETROPAVLOVSK | D | 1967 | K | | | | | | | | | | |
| PET | D | 1968 | K | AB | JASOND | | | AB | JASOND | | | | |
| (052.90 158.43) | D | 1969 | KA | AB | JFMAMJ JASOND | A C | J | AB | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ | | | | |
| | D | 1971 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JAS | | | AB D | JFMAMJ JA | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | K | | JFMAMJ JASOND | | | | JFMAMJ JASOND | | | | |
| | D | 1984 | K | | | | | | | | | | |
| PETSAMO | D | 1932 | | | | | | A | ASOND | | | | |
| PTS | D | 1933 | | | | | | A | JFMAMJ JA | | | | |
| (069.53 031.25) | | | | | | | | | | | | | |
| PILAR | D | 1940 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| PIL | D | 1941 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| (-31.67 296.12) | D | 1942 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1943 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1944 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1945 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1946 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1947 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1948 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1949 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1950 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1951 | KA | | | | | A | JFMAMJ JASON | | | | |
| | D | 1952 | A | | | | | | | | | | |
| | D | 1953 | A | | | | | | | | | | |
| | D | 1954 | A | | | | | | | | | | |
| | D | 1955 | A | | | | | | | | | | |
| | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | A | JASOND | | | AB DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1958 | KA | A | JFMAMJ JASOND | | | AB DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1959 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | OND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABC E | JFMAMJ JASOND | AB E | JF AMJ JASOND | A | J JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ | A | JFMAMJ |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY | MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PILAR | D | 1969 | KA | A | JFMAMJ JASOND | | | AB I | JFMAMJ | JASOND | | | | |
| PIL | D | 1970 | KA | A | JFMAMJ JASOND | | | AB I | JFMAMJ | JASOND | | | | |
| (-31.67 296.12) | D | 1971 | KA | A | JFMAMJ JASOND | | | | | | | | | |
| | D | 1972 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ | JASOND | | | | |
| | D | 1973 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ | JASOND | | | | |
| | D | 1974 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ | JASOND | | | | |
| | D | 1975 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ | JASON | | | | |
| | D | 1976 | KA | | | | | | | | | | | |
| | D | 1977 | KA | ABC | J | | | BC | | J | | | | |
| PIONERSKAYA | D | 1957 | KA | ABCD | JASOND | | | ABCD | | JASOND | | | | |
| PIO | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | | | | |
| (-69.73 95.50) | | | | | | | | | | | | | | |
| | D | 1971 | | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ | JASOND | | | | |
| | D | 1972 | | ABC | JF | | | ABC | JF | | | | | |
| PLAISANCE | D | 1966 | A | AB | JFMAMJ JASOND | | | | | | | | | |
| PLS | | | | | | | | | | | | | | |
| (-20.43 57.67) | | | | | | | | | | | | | | |
| PLATEAU | D | 1966 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | FMAMJ | JASOND | |
| PTU | D | 1967 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | JFMAMJ | JASOND | |
| (-79.25 40.50) | D | 1968 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | JFMAMJ | JASON | |
| POLA | D | 1892 | A | | | | | A | JFMAMJ | JASOND | | | | |
| POL | | | | | | | | | | | | | | |
| (044.86 13.85 | D | 1896 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1897 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1898 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1899 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1900 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1901 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1902 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1903 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1904 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1905 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1906 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1907 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1908 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1909 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1910 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1911 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1912 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1913 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1914 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1915 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1916 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1917 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1918 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1919 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1920 | | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1921 | A | | | | | A | JFMAMJ | JASOND | | | | |
| | D | 1922 | A | | | | | A | JFMAMJ | JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PORT ALFRED | D | 1972 | K | | | | | | | | | | |
| CZT | D | 1973 | K | | | | | | | | | | |
| (-46.43 51.87) | D | 1974 | KA | | | | | ABCD I | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1975 | KA | | | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1976 | KA | | | | | A CD I | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1977 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | | | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1979 | KA | | | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1980 | KA | A D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1981 | KA | A D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1982 | A | | | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1983 | | | | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| PORT MORESBY | D | 1958 | KA | ABCD | FMAMJ JASOND | | | ABCD | AMJ JASOND | | | | |
| PMG | D | 1959 | KA | ABCD | JFMAMJ JASOND | ABC | OND | A CD | JFMAMJ JASOND | | | | |
| ( -9.41 147.15) | D | 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A CD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | A CDE | JFMAMJ JASOND | AB E | ASOND | A | ASOND |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A CD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A CD | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | J SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A DE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFM SO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ | A | JF AMJ |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A DE | JFMAMJ JASOND | AB EI | JASO | A | JASO |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | A DE | JFMAMJ JASOND | AB EI | JFM | A | JFM |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | | | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ | AB | JFMAMJ | | |
| | D | 1981 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ J | A | JFMAMJ | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1983 | KA | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | |
| PORT-AUX-FRANCAI | D | 1957 | A | ABCD | OND | | | ABCD | OND | | | | |
| KGL | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (-49.35 70.20) | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JF ON |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFM J J ND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PORT-AUX-FRANCAI | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| KGL | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (-49.35 70.20) | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1972 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1973 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1977 | KA | A CD | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D 1982 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1983 | | C | F | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| POTSDAM | D 1890 | A | | | | | A | JFMAMJ JASOND | | | | |
| POT | D 1891 | A | | | | | A | JFMAMJ JASOND | | | | |
| (052.38 13.06) | D 1892 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1893 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1894 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1895 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1896 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1897 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1898 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1899 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1900 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1901 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1902 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1903 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1904 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1905 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1906 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1907 | A | | | | | A | JFMAMJ JASOND | | | | |
| PRICE | D 1957 | | ABCD | J JASOND | | | ABCDE | J JASOND | | | | |
| PCU | D 1958 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | | | |
| (039.60 249.17) | D 1959 | | AB D | J | | | AB DE | J | | | | |
| PRUHONICE | D 1952 | KA | | | | | A | JFMAMJ JASOND | | | | |
| PRU | D 1953 | KA | | | | | A | JFMAMJ JASOND | | | | |
| (049.99 14.55) | D 1954 | KA | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1956 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1957 | KA | ABCD | JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1960 | KA | AB D | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D 1961 | KA | | | | | AB D I | JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | AB D I | JFMAMJ JASOND | | | | |
| | D 1963 | KA | | | | | AB D I | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | | | | | AB D | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PRUHONICE | D 1966 | KA | | | | | AB | D I JFMAMJ JASOND | | | | |
| PRU | D 1967 | KA | | | | | AB | D I JFMAMJ JASOND | | | | |
| (049.99 14.55) | D 1968 | KA | | | | | AB | D I JFMAMJ JASOND | | | | |
| | D 1969 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1970 | KA | | | | | AB | D I JFMAMJ JASOND | | | | |
| | D 1971 | KA | | | | | AB | D JFMAMJ JASOND | | | | |
| | D 1972 | KA | | | | | AB | D I JFMAMJ JASOND | | | | |
| | D 1973 | | | | | | | I JFMAMJ JASOND | | | | |
| QUETTA | D 1953 | A | | | | | A | OND | | | | |
| QUE | D 1954 | A | | | | | A | JFMAMJ JASOND | | | | |
| (030.19 66.95) | D 1955 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1956 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1957 | KA | | | | | | | | | | |
| | D 1958 | KA | | | | | | | | | | |
| | D 1959 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1963 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1964 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1965 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1966 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1967 | KA | | | | | | | | | | |
| | D 1968 | KA | | | | | | | | | | |
| | D 1969 | KA | | | | | | | | | | |
| | D 1970 | KA | | | | | | | | | | |
| | D 1971 | KA | | | | | | | | | | |
| | D 1972 | KA | | | | | | | | | | |
| | D 1973 | KA | | | | | | | | | | |
| | D 1974 | KA | | | | | | | | | | |
| | D 1975 | KA | | | | | | | | | | |
| | D 1976 | K | | | | | | | | | | |
| | D 1977 | K | | | | | | | | | | |
| | D 1978 | KA | | | | | | | | | | |
| | D 1979 | KA | | | | | | | | | | |
| | D 1980 | KA | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| | D 1985 | K | | | | | | | | | | |
| RANKIN INLET | D 1973 | | A | MJ J | | | | | | | A | AS ND* |
| RIT | D 1974 | | ABC | J JASOND | | | | | | | A | MAMJ JASOND* |
| (062.80 267.67) | D 1975 | | ABC | JFMAMJ JASOND | | | | | | | A | JFMAMJ JASOND* |
| | D 1976 | | ABC | JFMAMJ JASOND | | | | | | | A | JFMA * |
| | D 1977 | | | | | | | | | | A | OND* |
| | D 1978 | | | | | | | | | | A | JF AM * |
| | D 1979 | | | | | | | | | | | |
| | D 1980 | | | | | | | | | | | |
| | D 1981 | | | | | | | | | | | |
| | D 1982 | | | | | | | | | | | |
| RESOLUTE BAY | D 1952 | KA | | | | | | | | | | |
| RES | D 1953 | KA | A D | ND | | | | | | | | |
| (074.70 265.10) | | | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RESOLUTE BAY | D | 1954 | KA | AB D | JFMAMJ JASOND | | | | | | | | |
| RES | D | 1955 | KA | AB D | JFMAMJ JASOND | | | | | | | | |
| (074.70 265.10) | D | 1956 | A | AB D | JFMAMJ JASOND | | | | | | | | |
| | D | 1957 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1958 | A | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1959 | A | AB D | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D | 1960 | A | AB | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1961 | A | AB | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1962 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1963 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1964 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | D | 1965 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ ND |
| | D | 1967 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | ASOND |
| | D | 1968 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | AB | JFMAMJ |
| | D | 1969 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J JASO |
| | D | 1970 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFM |
| | D | 1971 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | X | 1973 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JASOND* |
| | X | 1974 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1975 | A | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1976 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1977 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1978 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1979 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1980 | A | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1981 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1982 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1983 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1984 | | ABCD | JFMAMJ JAS | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| RIO DE JANEIRO | D | 1924 | | | | | | C | JFMAMJ JASOND | | | | |
| RDJ | D | 1925 | | | | | | C | JFMAMJ JASOND | | | | |
| (-22.91 316.83) | | | | | | | | | | | | | |
| ROBURENT | D | 1964 | KA | A | JASOND | | | AB D I | SOND | A | SOND | | |
| ROB | D | 1965 | KA | A | JFMAMJ JASOND | | | AB DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| (044.30 7.89) | D | 1966 | KA | A | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | A | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | A | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | A | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | A | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | A | JFMAMJ JASOND | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | A | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1974 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | | A | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROBURENT<br>ROB<br>( 44.30 7.89) | D 1980 | A | A | JFMAMJ JASOND | | | | | | | | |
| ROI BAUDOUIN<br>RBD | D 1958 | A | | | | | A | MJ JASOND | | | | |
| | D 1959 | A | | | | | A | JF | | | | |
| (-70.43 24.30) | D 1964 | KA | ABCD | J JASOND | | | AB D I | J JASOND | A | I J | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | AB DE | JFMAMJ JASOND | A | EI JFMAMJ JASOND | | JF |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | A | M | A | M |
| RUDE SKOV<br>RSV<br>(055.84 12.46) | D 1927 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1928 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1929 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1930 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1931 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1932 | A | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1933 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1934 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1935 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1936 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1937 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1938 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1939 | A | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1940 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1941 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1942 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1943 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1944 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1945 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1946 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1947 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1948 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1949 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1950 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1951 | KA | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1952 | KA | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1953 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1954 | KA | | | | | A C I | JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1956 | KA | | | | | | | | | | |
| | D 1957 | KA | ABCD | JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | J |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RUDE SKOV | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JA@OND | AB EI | JFMAMJ JASOND | A | JFMA |
| RSV | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| (055.84 12.46) | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | M |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1982 | K | | | | | | | | | | |
| | D | 1983 | K | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| SABHAWALA | D | 1964 | A | | | | | A E | JFMAMJ JASOND | | | | |
| SAB | D | 1965 | KA | | | | | AB E | JFMAMJ JASOND | | | | |
| (030.36 77.80) | D | 1966 | A | | | | | AB E | JFMAMJ JASOND | | | | |
| | D | 1967 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1968 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1969 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1970 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | | | | | ABCD | JFMAMJ JASOND | E | | | |
| | D | 1973 | KA | | | | | ABCD | JFMAMJ JASOND | E | | | |
| | D | 1974 | KA | | | | | ABCD | JFMAMJ JASOND | E | | | |
| | D | 1975 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | | | | | B D | JFMAMJ JASOND | | | | |
| | D | 1980 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| SACHS HARBOUR | D | 1977 | | | | | | | | | | A | SOND* |
| SAH | D | 1978 | | | | | | | | | | A | MAMJ JASOND* |
| (072.00 235.00) | D | 1979 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1980 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1981 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1982 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D | 1983 | | | | | | | | | | A | JFMAMJ JASOND* |
| SAN FERNANDO | D | 1904 | A | | | | | A | JFMAMJ JASOND | | | | |
| SFS | D | 1905 | A | | | | | A | JFMAMJ JASOND | | | | |
| (036.46 353.80) | D | 1906 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1907 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1908 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1909 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1910 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1911 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1912 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1920 | A | | | | | A | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAN FERNANDO | D 1921 | A | | | | | A | JFMAMJ JASOND | | | | |
| SFS | D 1922 | A | | | | | A | JFMAMJ JASOND | | | | |
| (036.46 353.80) | D 1923 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1924 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1925 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1926 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1927 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1928 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1929 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1930 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1931 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1932 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1933 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1934 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1935 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1936 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1937 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1938 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1939 | A | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1940 | KA | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1941 | KA | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1942 | KA | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1943 | KA | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1944 | KA | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1945 | KA | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1946 | KA | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1947 | KA | D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1948 | KA | CD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1949 | KA | CD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1950 | KA | CD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1951 | KA | CD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1952 | KA | CD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1953 | KA | CD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1954 | KA | CD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D 1955 | KA | CD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1956 | KA | CD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | | | | |
| | D 1957 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | M | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAN FERNANDO | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| SFS | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (036.46 353.80) | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | | | | | | | | | | |
| | D 1979 | K | | | | | | | | | | |
| | D 1980 | K | | | | | | | | | | |
| | D 1981 | K | | | | | | | | | | |
| SAN JUAN | D 1926 | A | A | FM SO | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| SJG | D 1927 | A | A | O | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| (018.38 293.88) | D 1928 | A | A | M JA O | | | A C E | JFMAMJ JASOND | AB E | FMAMJ JASOND | | |
| | D 1929 | A | A | FM JA N | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1930 | A | A | M MJ S D | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1931 | A | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1932 | A | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1933 | A | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1934 | A | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1935 | A | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1936 | A | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1937 | A | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1938 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1939 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1940 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1941 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1942 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1943 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1944 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1945 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1946 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1947 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1948 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1949 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1950 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1951 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1952 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1953 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1954 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1955 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1956 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1957 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | ASOND |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | OND |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | A CDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (018.11 293.85) | D 1966 | KA | ABCD | JFMAMJ JASOND | ABC | ASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAN JUAN | D | 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| SJG | D | 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| (018.11 293.85) | D | 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMA |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | M ND* |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | F AMJ SO D* |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| SANAE | D | 1961 | | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| SNA | D | 1962 | A | | | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| (-70.30 357.63) | D | 1963 | A | | | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1964 | KA | | | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1965 | A | | | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1966 | A | | | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1967 | A | | | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1968 | A | | | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1969 | A | | | | | BB DEI | JFMAMJ JASOND | ABC EI | JFMAMJ JASOND | | |
| | D | 1970 | KA | | | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1971 | A | | | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1972 | A | | | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1973 | A | | | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1974 | A | | | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1975 | A | | | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1976 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | A | | | | | A CD | JFMAMJ JASOND | | | | |
| | D | 1979 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| (-70.31 357.60) | D | 1981 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| SAO MIGUEL | D | 1932 | A | | | | | A C | ASOND | | | | |
| SMG | D | 1933 | A | | | | | A C | JFMAMJ JA | | | | |
| (037.77 334.35) | | | | | | | | | | | | | |
| | D | 1951 | KA | | | | | | | | | | |
| | D | 1952 | KA | | | | | | | | | | |
| | D | 1953 | KA | | | | | | | | | | |
| | D | 1954 | KA | | | | | | | | | | |
| | D | 1955 | KA | | | | | | | | | | |
| | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | A | JASOND | | | | | | | | |
| | D | 1958 | KA | A | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAO MIGUEL | D | 1959 | KA | A | JFMAMJ J | | | | | | | | |
| SMG | D | 1960 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JA D | | | | |
| (037.77 334.35) | D | 1961 | KA | A | JFMAMJ JASOND | | | A | JF | | | | |
| | D | 1962 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1963 | KA | | | | | | | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | E | SON | AB E | SON | A | ON |
| | D | 1966 | KA | A | JFMAMJ | | | | | | | | |
| | D | 1967 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1968 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | KA | | | | | | | | | | |
| | D | 1970 | KA | | | | | | | | | | |
| | D | 1971 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | KA | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | K | | | | | | | | | | |
| | D | 1979 | K | | | | | | | | | | |
| | D | 1980 | K | | | | | | | | | | |
| SCORESBYSUND | D | 1932 | | | | | | A | D | | | | |
| SCO | D | 1933 | | | | | | A | JFMAMJ JA | | | | |
| (070.48 338.03) | | | | | | | | | | | | | |
| SCOTT BASE | D | 1957 | KA | ABCD | JASOND | ABC | JASOND | ABCD | JASOND | | | | |
| SBA | D | 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| (-77.85 166.78) | D | 1959 | KA | | | | | | | | | | |
| | D | 1960 | KA | | | | | | | | | | |
| | D | 1961 | K | | | | | | | | | | |
| | D | 1962 | K | | | | | | | | | | |
| | D | 1963 | K | | | | | | | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | AB E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1967 | KA | | | | | | | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | KA | | | | | | | | | | |
| | D | 1970 | KA | | | | | | | | | | |
| | D | 1971 | KA | | | | | | | | | | |
| | D | 1972 | KA | | | | | | | | | | |
| | D | 1973 | KA | | | | | | | | | | |
| | D | 1974 | KA | | | | | | | | | | |
| | D | 1975 | KA | | | | | | | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | D | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | | | | | | | | | | |
| | D | 1978 | KA | | | | | | | | | | |
| | D | 1979 | KA | | | | | | | | | | |
| | D | 1980 | K | | | | | | | | | | |
| | D | 1981 | K | | | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCOTT BASE | D 1983 | K | | | | | | | | | | |
| SBA | D 1984 | K | | | | | | | | | | |
| (-77.85 166.78) | D 1985 | K | | | | | | | | | | |
| SEDDIN | D 1908 | A | | | | | A | JFMAMJ JASOND | | | | |
| SED | D 1909 | A | | | | | A | JFMAMJ JASOND | | | | |
| (052.28 13.01) | D 1910 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1911 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1912 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1913 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1914 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1915 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1916 | A | | | | | A | JFMAMJ JASOND | | | | |
| SEOUL | D 1965 | | | | | | D | MAMJ JASOND | | | | |
| SEO | | | | | | | | | | | | |
| (038.58 127.05) | | | | | | | | | | | | |
| SEYKHA | D 1973 | | ABCD | ND | | | | | | | | |
| SEY | D 1974 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| (070.10 072.50) | D 1975 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1977 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| SHESHAN | D 1933 | | | | | | C | JFMAMJ JASOND | | | | |
| SSH | | | | | | | | | | | | |
| (031.10 121.19) | D 1936 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1937 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D 1947 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1948 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1949 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1950 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1951 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1952 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1953 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1954 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1955 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1956 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1957 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1958 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1959 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1963 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1964 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1965 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1966 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1967 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1968 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1969 | A | | | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHESHAN | D 1970 | A | | | | | | ABCD JFMAMJ JASOND | | | | |
| SSH | D 1971 | A | | | | | | ABCD JFMAMJ JASOND | | | | |
| (031.10 121.19) | D 1972 | A | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1973 | A | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1974 | A | | | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1975 | A | | | | | | A D JFMAMJ JASOND | | | | |
| | D 1976 | A | | | | | | A D JFMAMJ JASOND | | | | |
| | D 1977 | A | | | | | | A D JFMAMJ JASOND | | | | |
| | D 1978 | A | | | | | | A JFMAMJ JASOND | | | | |
| | D 1979 | A | | | | | | ABC JFMAMJ JASOND | | | | |
| | D 1980 | A | | | | | | ABC JFMAMJ JASOND | | | | |
| | D 1981 | A | | | | | | ABC JFMAMJ JASOND | | | | |
| SIMFEROPOL | D 1957 | | | | ABC | JASOND | | | | | | |
| SIM | D 1958 | | | | ABC | JFMAMJ JASOND | | | | | | |
| (044.83 34.07) | D 1959 | A | | | ABC | JFMAMJ JASOND | | | | | | |
| SIMOSATO | D 1954 | KA | | | | | | A CD SOND | | | | |
| SSO | D 1955 | KA | | | | | | A CD I JFMAMJ JASOND | | | | |
| (033.58 135.94) | D 1956 | KA | | | | | | A CD I JFMAMJ JASOND | | | | |
| | D 1957 | KA | ABCD | JASOND | ABC | JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1959 | KA | B | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1960 | KA | | | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1961 | KA | | | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDE JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDE JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD JFMAMJ JASOND | | | | |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | B | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D 1977 | KA | | | | | | ABCD I JFMAMJ JASOND | | | | |
| | D 1978 | | | | | | | ABC I JFMAMJ JASOND | | | | |
| | D 1979 | | B | JFMAMJ JASOND | | | | | | | | |
| SITKA | D 1902 | A | A | AM J | | | | A C E JFMAMJ JASOND | AB | E MAMJ JASOND | | |
| SIT | D 1903 | A | A | A J JASO D | | | | A C E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| (057.05 224.67) | D 1904 | A | A | MAMJ JASON | | | | A C E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1905 | A | A | FMA J JAS N | | | | A E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1906 | A | A | F MJ JAS D | | | | A E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1907 | A | A | JFM M JA ON | | | | A C E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1908 | A | A | M JAS | | | | A C E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1909 | A | A | M M ASO | | | | A E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1910 | A | A | J MA ASO | | | | A E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1911 | A | A | JFMA ASO D | | | | A C E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SITKA | D 1912 | A | A | MA AS D | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| SIT | D 1913 | A | A | J MA SO | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (057.05 224.67) | D 1914 | A | A | A J J SON | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1915 | A | A | MA J ASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1916 | A | A | J MAM JA ON | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1917 | A | A | JF A J JASO D | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1918 | A | A | MAMJ ASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1919 | A | A | JF M ASO D | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1920 | A | A | MAM S D | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1921 | A | A | AM S N | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1922 | A | A | J SO | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1923 | A | A | M J SO | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1924 | A | A | J MJ O | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1925 | A | A | ASO | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1926 | A | A | JFMA J SO | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1927 | A | A | J MAM JA O | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1928 | A | A | M JASO | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1929 | A | A | FM JA N | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1930 | A | A | MJ S D | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1931 | A | A | J J SO | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1932 | A | A | M M ASO | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1933 | A | A | AM JAS | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1934 | A | A | M M J S D | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1935 | A | A | MAMJ J S | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1936 | A | A | A J J OND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1937 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1938 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1939 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (057.06 224.68) | D 1940 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1941 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1942 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1943 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1944 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1945 | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1946 | KA | A C | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1947 | KA | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1948 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1949 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1950 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1951 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1952 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1953 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1954 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1955 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1956 | KA | A C | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1957 | KA | ABCD | JFMAMJ JASOND | ABC | JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SITKA | D | 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| SIT | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAM SOND |
| (057.06 224.68) | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JF |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | A |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| SLUTZK | D | 1882 | A | | | | | C | ASOND | | | | |
| SLU | D | 1883 | A | | | | | C | JFMAMJ JA | | | | |
| (059.69 39.49) | D | 1932 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1933 | A | | | | | C | JFMAMJ JASOND | | | | |
| SODANKYLA | D | 1914 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| SOD | D | 1915 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (067.37 26.65) | D | 1916 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1917 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1918 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1919 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1920 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1921 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1922 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1923 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1924 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1925 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1926 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1927 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1928 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1929 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1930 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1931 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1932 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1933 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1934 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1935 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1936 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1937 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1938 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SODANKYLA | D 1939 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| SOD | D 1940 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (067.37 26.65) | D 1941 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1942 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1943 | A | | | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1944 | A | | | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JAS | | |
| | D 1945 | A | | | | | | | | | | |
| (067.37 26.63) | D 1946 | A | | | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1947 | KA | | | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1948 | KA | | | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1949 | KA | | | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1950 | KA | | | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1951 | KA | | | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1952 | KA | | | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1953 | KA | | | | | A C E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1954 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1955 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1956 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1957 | KAQ | ABCD | J JASOND | ABC | JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1958 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1959 | KAQ | B D | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1960 | KAQ | | | | | AB DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1961 | KAQ | | | | | AB DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1962 | KAQ | | | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1963 | KAQ | | | | | AB DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1964 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1966 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1967 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | AB DE | JFMAMJ JASOND | AB E | JFMAM | A | JFMAM |
| | D 1968 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | MJ JAS | A | J JAS |
| | D 1969 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | | | | |
| | D 1970 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | F | A | F |
| | D 1973 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KAQ | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| | D 1982 | KAQ | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1984 | K Q | ABCD | JFMAMJ JASON | | | A | JF | | | | |
| | D 1985 | K Q | A | JF | | | | | | | | |
| SOUTH GEORGIA | D 1975 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| SGE | D 1976 | A | A CD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (-54.28 323.52) | D 1977 | A | A CD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1978 | A | ABCD | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |

| OBSERVATORY | YEAR | COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOUTH GEORGIA | 1979 | D | A | ABCD | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| SGE | 1980 | D | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (-54.28 323.52) | 1981 | D | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | 1982 | D | | A | JFM | | | | | | | | |
| SOUTH POLE | 1957 | D | | BCD | J JASOND | | | | | | | | |
| SPA | 1958 | D | | BCD | JFMAMJ JASOND | | | | | | | | |
| (-90.00 00.00) | 1959 | D | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASON | | |
| | 1960 | D | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | FMAMJ JASOND | | |
| | 1961 | D | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | 1962 | D | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFM MJ JA |
| | 1963 | D | KA | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | 1964 | D | KA | ABCD | JFMAMJ JASOND | | | ABCDE | MAMJ JASOND | AB E | MAMJ JASOND | A | MAMJ |
| | 1965 | D | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | 1966 | D | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | 1967 | D | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | 1968 | D | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | 1969 | D | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | 1970 | D | KA | AB D | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | 1971 | D | KA | A | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | 1972 | D | K | A D | JFMAMJ JASOND | | | | | | | | |
| | 1973 | D | K | A D | JFMAMJ JASOND | | | | | | | | |
| | 1974 | D | K | A | JFMAMJ JASO | | | | | | | | |
| | 1977 | D | | B | MAMJ JASOND | | | | | | | | |
| | 1978 | D | | B | JFMAMJ JASON | | | | | | | | |
| SPITZBERGEN | 1932 | D | | | | | | A | SOND | | | | |
| SPB | 1933 | D | | | | | | A | JFMAMJ JA | | | | |
| (078.50 015.10) | | | | | | | | | | | | | |
| SREDNIKAN | 1940 | D | KA | | | | | | | | | | |
| SRE | 1941 | D | KA | | | | | | | | | | |
| (062.44 152.31) | | | | | | | | | | | | | |
| | 1943 | D | KA | | | | | | | | | | |
| | 1944 | D | KA | | | | | | | | | | |
| | 1945 | D | KA | | | | | | | | | | |
| | 1946 | D | KA | | | | | | | | | | |
| | 1955 | D | KA | | | | | | | | | | |
| | 1956 | D | KA | | | | | | | | | | |
| | 1957 | D | KA | ABCD | JASOND | | | ABCD | JASOND | | | | |
| | 1958 | D | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | 1959 | D | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | 1960 | D | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | 1961 | D | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | 1962 | D | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | 1963 | D | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | 1964 | D | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | 1965 | D | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | 1966 | D | KA | ABCD | JFMAMJ JASO | | | ABCD | JFMAMJ JASOND | | | | |
| | 1967 | D | KA | | | | | | | | | | |
| | 1968 | D | K | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SREDNIKAN | D | 1969 | K | | | | | | | | | | |
| SRE | D | 1970 | K | | | | | | | | | | |
| (062.44 152.31) | D | 1971 | K | | | | | | | | | | |
| ST JOHNS | D | 1968 | KA | ABCD | JASOND | | | ABCDE | ASOND | AB E | ASOND | | |
| STJ | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | D* |
| (047.59 307.32) | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| (047.60 307.32) | X | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1979 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1980 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1981 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1982 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1983 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1984 | | ABCD | JFMAMJ JAS | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| STONYHURST | D | 1958 | | ABCD | MAMJ JASOND | | | | | | | | |
| STO | | | | | | | | | | | | | |
| (053.85 357.53) | D | 1960 | K | | | | | | | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1967 | A | | | | | AB D | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| SUKKERTOPPEN | D | 1964 | | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | | | | | | |
| SKT | D | 1965 | | A CD | JFMAMJ JASOND | A C | JFMAMJ JASOND | A E | SON | AB E | SON | A | ON |
| (065.42 307.10) | D | 1966 | | A | M | | | A | M | AB | M | A | M |
| SURLARI | D | 1957 | KA | AB D | J JASOND | | | ABCD | J JASOND | | | | |
| SUA | D | 1958 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (044.68 26.25) | D | 1959 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | AB D | JFMAMJ JASOND | | | AB DE | JFMAMJ JASOND | AB E | ASOND | A | ASOND |
| | D | 1962 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | AB D | JFMAMJ JASOND | | | AB DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J SOND |
| | D | 1965 | KA | AB D | JFMAMJ JASOND | | | AB DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFM |
| | D | 1966 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY | MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SURLARI | D | 1974 | KA | A | JFMAMJ | | | AB D | JFMAMJ | JASOND | | | | |
| SUA | D | 1975 | KA | | | | | AB D | JFMAMJ | JASOND | | | | |
| (044.68 26.25) | D | 1976 | KA | | | | | AB D | JFMAMJ | JASOND | | | | |
| | D | 1977 | KA | | | | | AB D | JFMAMJ | JASOND | | | | |
| | D | 1978 | KA | | | | | AB D | JFMAMJ | JASOND | | | | |
| | D | 1979 | KA | | | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1980 | KA | | | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1981 | K | | | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1982 | K | | | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1983 | K | | | | | ABCD | JFMAMJ | JASOND | | | | |
| SVERDLOVSK | D | 1932 | A | | | | | C | JFMAMJ | JASOND | | | | |
| SVD | | | | | | | | | | | | | | |
| (056.73 61.07) | D | 1939 | KA | | | | | | | | | | | |
| | D | 1940 | KA | | | | | | | | | | | |
| | D | 1941 | KA | | | | | | | | | | | |
| | D | 1942 | KA | | | | | | | | | | | |
| | D | 1943 | KA | | | | | | | | | | | |
| | D | 1944 | KA | | | | | | | | | | | |
| | D | 1945 | KA | | | | | | | | | | | |
| | D | 1946 | KA | | | | | | | | | | | |
| | D | 1947 | KA | | | | | | | | | | | |
| | D | 1955 | KA | | | | | | | | | | | |
| | D | 1956 | KA | | | | | | | | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCD | JASOND | | AB | JFMAMJ JASOND | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | AB | JFMAMJ JASOND | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | AB | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | AB | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | AB | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | AB | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | AB | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | JFMAMJ JASOND | A | J SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | JFMAMJ JASOND | A | SO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | JFMAMJ JASOND | A | JF AMJ J |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | JFMAMJ JASOND | A | JFMA |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ | JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1977 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ | JASOND | | | | |
| | D | 1978 | K | ABC | JFMAMJ JASOND | | | A C | JFMAMJ | JASOND | ABC | | | |
| | D | 1979 | K | ABC | JFMAMJ JASOND | | | A C | JFMAMJ | JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1980 | K | ABC | JFMAMJ JASOND | | | A C | JFMAMJ | JASOND | ABC | JFMAMJ JASOND | | |
| | D | 1981 | | ABC | JFMAMJ JASOND | | | A C | JFMAMJ | JASOND | ABC | | | |
| | D | 1982 | | ABC | JFMAMJ JASOND | | | A C | JFMAMJ | JASOND | ABC | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SVERDLOVSK | D 1983 | K | ABC | JFMAMJ JASOND | | | A C | JFMAMJ JASOND | ABC | | | |
| SVD | D 1984 | K | ABC | JFMAMJ JASO | | | A C | JFMAMJ JASO | ABC | | | |
| (056.73 61.07) | | | | | | | | | | | | |
| SWIDER | D 1921 | A | | | | | A | JFMAMJ JASOND | | | | |
| SWI | D 1922 | A | | | | | A | JFMAMJ JASOND | | | | |
| (052.12 21.25) | D 1923 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1924 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1925 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1926 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1927 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1928 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1929 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1930 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1931 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1932 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1933 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1934 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1935 | A | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1936 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1937 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1938 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1939 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1940 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1941 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1942 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1943 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1944 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1945 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1946 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1947 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1948 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1949 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1950 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1951 | KA | | | | | ABC | JFMAMJ JASOND | | | | |
| | D 1952 | KA | | | | | ABC | JFMAMJ JASOND | | | | |
| | D 1953 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1954 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1956 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1957 | KA | AB D | JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1958 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1959 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1961 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1963 | KA | | | | | ABC | JFMAMJ JASOND | | | | |
| | D 1964 | KA | | | | | ABC E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | | | | | ABC E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1966 | KA | | | | | ABC | JFMAMJ JASOND | | | | |
| | D 1967 | KA | | | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SWIDER | D 1968 | KA | | | | | | | | | | |
| SWI | D 1969 | KA | | | | | | | | | | |
| (052.12 21.25) | D 1970 | KA | | | | | | | | | | |
| | D 1971 | KA | | | | | | | | | | |
| | D 1972 | KA | | | | | | | | | | |
| | D 1973 | KA | | | | | | | | | | |
| | D 1974 | KA | | | | | | | | | | |
| | D 1975 | K | | | | | | | | | | |
| SYOWA STATION | D 1959 | | ABCD | FMAMJ JASOND | | | | | | | | |
| SYO | D 1960 | | AB | J | | | | | | | | |
| (-69.01 39.59) | | | | | | | | | | | | |
| | D 1966 | | ABCD | MAMJ JASOND | | | | | | | | |
| | D 1967 | K | ABCD | J | | | | | | | | |
| | D 1968 | K | ABCD | FMAMJ JASOND | ABC | FMAMJ JASOND | | | | | | |
| | D 1969 | K | A CD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1970 | K | A CD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1971 | K | A CD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1972 | K | A CD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1973 | | A CD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1974 | | ABCD | JFMAMJ JASOND | ABC | J | | | | | | |
| | D 1975 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1977 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1980 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1981 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1982 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1983 | K | A CD | JFMAMJ JASOND | | | | | | | | |
| | D 1984 | K | A | J | | | | | | | | |
| TAHITI | D 1958 | A | ABCD | AMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| TAH | D 1959 | A | ABCD | JF | | | ABCD | JFMAMJ JASOND | | | | |
| (-17.56 210.39) | D 1960 | | | | | | B | JF | | | | |
| TALARA | D 1957 | | ABCD | J JASOND | | | ABCD | J JASOND | | | | |
| TAL | D 1958 | | ABCD | FMAMJ JASOND | | | ABC | F MJ JASOND | | | | |
| (-04.63 278.70) | D 1959 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1960 | | ABCD | JF | | | ABCD | JF | | | | |
| TALKEETNA | D 1977 | | | | | | | | | | A | A N * |
| TLK | D 1978 | | | | | | | | | | A | AM JASOND* |
| (062.30 209.90) | D 1979 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1980 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1981 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1982 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1983 | | A | | | | | | | | A | JFMAMJ JASOND* |
| TAMANRASSET | D 1952 | KA | | | | | | | | | | |
| TAM | D 1953 | KA | | | | | A | JFMAMJ JASOND | | | | |
| (022.79 5.53) | D 1954 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | | | | | | |
| | D 1956 | KA | | | | | | | | | | |
| | D 1957 | KA | ABCD | JASOND | | | | | | | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TAMANRASSET | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| TAM | D | 1960 | KA | A | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| (022.79 5.53) | D | 1961 | KA | A | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | A | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | A | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | A | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| | D | 1965 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1966 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1967 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1968 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | KA | A | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | KA | | | | | | | | | | |
| | D | 1980 | KA | | | | | | | | | | |
| TAMBEY | D | 1973 | | ABCD | ND | | | | | | | | |
| TMB | D | 1974 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| (071.50 071.80) | D | 1975 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | | ABCD | JFMAMJ JASON | | | | | | | | |
| | D | 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| TANANARIVE | D | 1950 | KA | | | | | | | | | | |
| TAN | D | 1951 | KA | | | | | | | | | | |
| (-18.92 47.55) | D | 1952 | KA | | | | | | | | | | |
| | D | 1953 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1954 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1955 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | J SOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | ASOND | A | ASO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ | A | JF AMJ |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JASO | A | JASO |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFM | A | JFM |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TANANARIVE | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| TAN | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (-18.92 47.55) | D 1975 | KA | A | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | AB | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | | | | | | D | FMAMJ JAS D | | | | |
| | D 1981 | KA | | | | | AB | FMAMJ JAS D | | | | |
| | D 1982 | K | | | | | | | | | | |
| TANGERANG | D 1964 | KA | ABCD | AMJ JASOND | | | A DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| TNG | D 1965 | KA | ABCD | JFMAMJ JASOND | | | A DE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| ( -6.17 106.63) | D 1966 | KA | ABCD | OND | | | A DE | JFMAMJ JASOND | AB EI | SOND | A | OND |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | A DE | FMAMJ JASOND | AB EI | MAM SOND | A | AM SOND |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | MJ JASO | A | J JAS |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1975 | KA | A | JFMAMJ JA | | | | | | | | |
| | D 1976 | KA | ABCD | MJ JASOND | | | | | | | | |
| | D 1977 | KA | A | JFMAMJ JASON | | | | | | | | |
| | D 1978 | KA | A | MJ JASOND | | | | | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1980 | KA | A | JFM J JAS | | | | | | | | |
| | D 1981 | A | A | FMAMJ JASOND | | | | | | | | |
| | D 1982 | A | A | JFMAM | | | | | | | | |
| TASHKENT | D 1941 | K | | | | | | | | | | |
| TKT | D 1942 | K | | | | | | | | | | |
| (041.33 69.62) | D 1943 | K | | | | | | | | | | |
| | D 1944 | K | | | | | | | | | | |
| | D 1945 | K | | | | | | | | | | |
| | D 1946 | K | | | | | | | | | | |
| | D 1955 | K | | | | | | | | | | |
| | D 1956 | K | | | | | | | | | | |
| | D 1957 | K | ABCD | JASOND | | | ABCD | JASOND | AB | JFMAMJ JASOND | | |
| | D 1958 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1959 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1960 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1961 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1962 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1963 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JASOND |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | J JASO |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TASHKENT | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| TKT | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (041.33 69.62) | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFMAMJ JA | | | ABCD | JFMAMJ JA | | | | |
| TATUOCA | D | 1933 | A | | | | | A C | SOND | | | | |
| TTB | D | 1934 | A | | | | | A C | J | | | | |
| ( -1.21 311.49) | | | | | | | | | | | | | |
| | D | 1957 | KA | AB D | ASOND | | | ABCD I | ASOND | | | | |
| | D | 1958 | KA | AB D | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | A | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | A | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1964 | A | ABCD | JFMAMJ JASOND | | | A E | SOND | AB E | SOND | A | SOND |
| | D | 1965 | A | ABCD | JFMAMJ JASOND | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1967 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1968 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1971 | A | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | | AB D | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | | A | JFMAMJ JASOND | | | | | | | | |
| TBILISI | D | 1940 | K | | | | | | | | | | |
| TFS | D | 1941 | K | | | | | | | | | | |
| (042.09 44.71) | D | 1942 | K | | | | | | | | | | |
| | D | 1943 | K | | | | | | | | | | |
| | D | 1944 | K | | | | | | | | | | |
| | D | 1945 | K | | | | | | | | | | |
| | D | 1946 | K | | | | | | | | | | |
| | D | 1955 | K | | | | | | | | | | |
| | D | 1956 | K | | | | | | | | | | |
| | D | 1957 | KA | ABCD | JASOND | ABC | JASOND | ABCD | JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | ABC | MAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAM | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TBILISI | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| TFS | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (042.09 44.71) | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JF AMJ |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | K | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | ABCD | JFMAMJ JASO | | | ABCD | JFMAMJ JASO | | | | |
| TEHRAN | D | 1957 | K | A C | SO | | | | | | | | |
| TEH | D | 1958 | K | ABCD | FMAMJ JASON | | | | | | | | |
| (035.74 51.38) | D | 1959 | K | ABCD | MAM ASON | | | | | | | | |
| | D | 1960 | KA | B D | FM | | | | | | | | |
| | D | 1961 | KA | | | | | | | | | | |
| | D | 1962 | KA | | | | | | | | | | |
| | D | 1963 | KA | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | AB E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1966 | KA | A | JFMAM | | | AB | JFMAMJ JASOND | AB I | M | A | M |
| | D | 1967 | KA | A | A | | | ABCDE | JFMAMJ JASOND | AB EI | AS | A | A |
| | D | 1968 | KA | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1970 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1971 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1972 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1973 | A | | | | | ABC | JFMAMJ JASOND | | | | |
| TEOLOYUCAN | D | 1951 | KA | | | | | | | | | | |
| TEO | D | 1952 | KA | | | | | | | | | | |
| (019.75 260.82) | D | 1953 | KA | | | | | | | | | | |
| | D | 1954 | KA | | | | | | | | | | |
| | D | 1955 | KA | | | | | | | | | | |
| | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | ABCD | JFMAMJ JASOND | | | BCD | MJ JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | B D | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | A | JFMAMJ JASOND | | | D | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | A | JFMAMJ JASOND | | | D | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | A | JFMAMJ JASOND | | | CD | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEOLOYUCAN | D | 1962 | KA | A | JFMAMJ JASOND | | | | CD JFMAMJ JASOND | | | | |
| TEO | D | 1963 | KA | A | JFMAMJ JASOND | | | | CD JFMAMJ JASOND | | | | |
| (019.75 260.82) | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | | CD I JFMAMJ JASOND | | | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | | A DEI JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1966 | KA | A | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | | | | |
| | D | 1967 | KA | A | JFMAMJ JASOND | | | | A D I JFMAMJ JASOND | | | | |
| | D | 1968 | KA | A | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | | | | |
| | D | 1969 | KA | A | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | | | | |
| | D | 1970 | KA | A | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | | | | |
| | D | 1971 | KA | A | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | | | | |
| | D | 1972 | KA | A | JFMAMJ JASOND | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1973 | KA | A | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | | | | |
| | D | 1974 | KA | A | JFMAMJ JASOND | | | | ABC I JFMAMJ JASOND | | | | |
| | D | 1975 | KA | A | JFMAMJ JASO | | | | ABCD JFMAMJ JASOND | | | | |
| | D | 1982 | | A | J | | | | | | | | |
| TEVRIZ | D | 1974 | | ABCD | JFMA J JA OND | | | | | | | | |
| TEV | D | 1975 | | BCD | JFMAMJ JASOND | | | | | | | | |
| (057.50 072.40) | D | 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | | B | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| THOMPSON | D | 1973 | | A | JAS ND | | | | | | | | |
| TMP | D | 1974 | | ABC | JFMAMJ JASOND | | | | | | | | |
| (055.72 262.12) | D | 1975 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | | | | | | | | | | A | JFMAMJ * |
| THULE | D | 1932 | A | | | | | | A ASOND | | | | |
| THL | D | 1933 | A | | | | | | A JFMAMJ J | | | | |
| (076.54 290.94) | | | | | | | | | | | | | |
| | D | 1947 | A | D | JFMAMJ JASOND | | | | | | | | |
| | D | 1948 | A | D | JFMAMJ JASOND | | | | | | | | |
| | D | 1949 | A | D | JFMAMJ JASOND | | | | | | | | |
| | D | 1950 | A | A D | JFMAMJ JASOND | | | | | | | | |
| | D | 1951 | A | A D | JFMAMJ JASOND | | | | | | | | |
| | D | 1952 | A | A D | JFMAMJ JA | | | | | | | | |
| (077.48 290.83) | D | 1955 | KA | A D | SOND | | | | | | | | |
| | D | 1956 | KA | A D | JFMAMJ JASOND | | | | | | | | |
| | D | 1957 | KAQ | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCD I JFMAMJ JASOND | | | | |
| | D | 1958 | KAQ | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | | ABCD I JFMAMJ JASOND | AB | JFMAMJ JASOND | A | M |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | | ABCDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | AB | JFMAMJ JASOND |

| OBSERVATORY | COMP | YEAR | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| THULE | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMA D |
| THL | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| (077.48 290.83) | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | B | JFMAMJ JASOND | | |
| | D | 1971 | A | ABCD | JFMAMJ JASOND | B | ND | A CD I | JFMAMJ JASOND | | | | |
| | D | 1972 | A | ABCD | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | | | | |
| | D | 1973 | A | ABCD | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | | | | |
| | D | 1974 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1981 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1982 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1983 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1984 | A | A CD | JFMAMJ JASON | | | | | | | | |
| THULE AFB | D | 1957 | K | | | | | | | | | | |
| THU | D | 1958 | K | | | | | | | | | | |
| (076.55 291.17) | D | 1959 | K | | | | | | | | | | |
| | D | 1960 | K | | | | | | | | | | |
| | D | 1961 | K | | | | | | | | | | |
| | D | 1962 | K | | | | | | | | | | |
| | D | 1963 | K | | | | | | | | | | |
| | D | 1964 | K | | | | | | | | | | |
| | D | 1965 | K | | | | | | | | | | |
| | D | 1966 | K | ABC | JFMAMJ JASOND | | | | | | | | |
| | D | 1967 | K | ABC | JFMAMJ JASOND | | | | | | | | |
| | D | 1968 | K | ABC | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | K | ABC | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | K | ABC | JFMAMJ JASOND | | | | | | | | |
| | D | 1971 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | | ABC | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | | A | JFM | | | | | | | | |
| | D | 1983 | | | | | | | | | | | |
| TIHANY | D | 1951 | | | | | | D | JFMAMJ JASOND | | | | |
| THY | D | 1952 | | | | | | D | JFMAMJ JASOND | | | | |
| (046.90 17.89) | D | 1953 | | | | | | D | JFMAMJ JASOND | | | | |
| | D | 1954 | | | | | | D | JFMAMJ JASOND | | | | |
| | D | 1955 | KA | | | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | AB D I | JFMAMJ JASOND | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | B | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1965 | KA | B | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TIHANY | D | 1966 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| THY | D | 1967 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| (046.90 17.89) | D | 1968 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1969 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1970 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1971 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1972 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1973 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1974 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1975 | KA | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABC | JFMAMJ JASOND | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABC | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABC | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABC | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABC | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABC | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABC | JFMAMJ JASO | | | A | JFMAMJ JASOND | | | | |
| | D | 1983 | A | B | JFMA | | | | | | | | |
| TIKHAYA BAY | D | 1955 | KA | | | | | | | | | | |
| TKH | D | 1956 | KA | | | | | | | | | | |
| (080.33 52.80) | D | 1957 | KA | A D | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D | 1958 | KA | A D | JFMAMJ JA | | | A D | JFMAMJ JA | | | | |
| | D | 1979 | | | | | | C | JFMAMJ JASOND | | | | |
| TIXIE BAY | D | 1955 | KA | | | | | | | | | | |
| TIK | D | 1956 | KA | | | | | | | | | | |
| (071.58 129.00) | D | 1957 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1958 | KAQ | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | A | JFMAM | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | SOND |
| | D | 1965 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASO | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASO |
| | D | 1968 | K | ABCD | FMAMJ JASOND | | | A DE | M MJ JASOND | AB E | M MJ JASOND | A | M MJ JASOND |
| | D | 1969 | K | ABCD | JFMAMJ JA D | | | A DE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JA D |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TIXIE BAY | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| TIK | D | 1983 | K | AB | JFMAMJ JASOND | | | | | | | | |
| (071.58 129.00) | D | 1984 | K | | | | | | | | | | |
| TOKYO | D | 1897 | A | | | | | A | JFMAMJ JASOND | | | | |
| TOK | D | 1898 | A | | | | | A | JFMAMJ JASOND | | | | |
| (035.69 139.75) | D | 1899 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1900 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1901 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1902 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1903 | A | | | | | | | | | | |
| | D | 1904 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1905 | A | | | | | | | | | | |
| | D | 1906 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1907 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1908 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1909 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1910 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1911 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1912 | A | | | | | A | JFMAMJ JASOND | | | | |
| TOLEDO | D | 1948 | KA | | | | | | | | | | |
| TOL | D | 1949 | KA | | | | | | | | | | |
| (039.88 355.95) | D | 1950 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1951 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1952 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1953 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1954 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1955 | KA | | | | | A D | JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | A D | JFMAMJ JASOND | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | | | | | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | J SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | A | J JA | ABCDE | JFMAMJ JASOND | AB EI | OND | A | ND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | A | JAS | ABCDE | JFMAMJ JASOND | AB EI | MAM SOND | A | AM SO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ | A | JF AMJ |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JASO | A | JASO |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | SOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOLEDO | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMA | | |
| TOL | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (039.88 355.95) | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | A D | JFMAMJ JASOND | | | | |
| | D | 1983 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1984 | K | ABCD | JFMAMJ JAS | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | |
| TOMSK | D | 1958 | KA | AB | JASOND | | | | | | | | |
| TMK | D | 1959 | KA | AB | JFMAMJ JASOND | | | | | | | | |
| (056.47 84.93) | D | 1960 | KA | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1961 | KA | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1962 | KA | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1963 | KA | AB | JFMAMJ JASOND | | | AB | JASOND | | | | |
| | D | 1964 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1965 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1966 | KA | B | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D | 1970 | K | | | | | | | | | | |
| TOOLANGI | D | 1924 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| TOO | D | 1925 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-37.53 145.47) | D | 1926 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1927 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1928 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1929 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1930 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1931 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1932 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1933 | A | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1934 | A | | | | | | | | | | |
| | D | 1935 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1936 | A | | | | | | | | | | |
| | D | 1937 | A | | | | | | | | | | |
| | D | 1938 | A | | | | | | | | | | |
| | D | 1939 | A | | | | | | | | | | |
| | D | 1940 | A | | | | | | | | | | |
| | D | 1941 | KA | | | | | | | | | | |
| | D | 1942 | KA | | | | | | | | | | |
| | D | 1943 | KA | | | | | | | | | | |
| | D | 1944 | KA | | | | | | | | | | |
| | D | 1945 | KA | | | | | | | | | | |
| | D | 1946 | KA | | | | | | | | | | |
| | D | 1947 | KA | | | | | | | | | | |
| | D | 1948 | KA | | | | | | | | | | |
| | D | 1949 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1950 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1951 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1952 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1953 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1954 | KA | | | | | A E | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1955 | KA | | | | | A CDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOOLANGI | D | 1956 | KA | | | | | A | CDEI JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| TOO | D | 1957 | KA | ABCD | JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-37.53 145.47) | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | A | CDE JFMAMJ JASOND | AB E | ASOND | A | ASOND |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | A | CD JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | A | CD JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | J SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | A | CDE JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | A | DE JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAM ASO D |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | A | CDE JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | A | DE JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JASO |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | A | DE JFMAMJ JASOND | AB E | JFM | A | JFM |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | KA | AB | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1980 | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1981 | K | A | JFMA | | | | | | | | |
| | D | 1983 | K | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| TRELEW | D | 1957 | KA | ABCD | SOND | | | ABCD | I JASOND | | | | |
| TRW | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I JFMAMJ JASOND | | | | |
| (-43.25 294.69) | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | I JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | A | E J SOND | A E | J SOND | A | J SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | A | E JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | A | E JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | A | E JFMAMJ JASOND | A E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | A | E JFMAMJ JASOND | A E | JFM | A | JFM |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1971 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | | A | JFMAMJ JASO | | | | | | | | |
| | D | 1976 | K | ABCD | JFMAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR | COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRELEW | 1979 | D | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| TRW | 1980 | D | K | ABCD | JFMAMJ JASOND | | | | | | | | |
| (-43.25 294.69) | 1981 | D | K | A | J | | | | | | | | |
| | 1982 | D | K | | | | | | | | | | |
| | 1983 | D | K | | | | | | | | | | |
| | 1984 | D | K | | | | | | | | | | |
| TRIVANDRUM | 1957 | D | KA | ABCD | JASOND | | | ABCD | OND | | | | |
| TRD | 1958 | D | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| (008.48 76.95) | 1959 | D | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1960 | D | KA | I | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1961 | D | KA | I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1962 | D | KA | I | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1963 | D | KA | ABCD I | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1964 | D | KA | ABCD I | JFMAMJ JASOND | AB | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | 1965 | D | KA | ABCD I | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | 1966 | D | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1967 | D | KA | ABCD I | JFMAMJ JASOND | | | A CD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1968 | D | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1969 | D | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1970 | D | KA | A CD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1971 | D | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1972 | D | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1973 | D | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1974 | D | KA | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | I | JFMAMJ JASOND | | |
| | 1975 | D | A | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | 1976 | D | A | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | 1977 | D | A | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | 1978 | D | A | ABCD I | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | 1979 | D | A | ABCD I | JFMAMJ JASOND | | | B D I | JFMAMJ JASOND | | | | |
| | 1980 | D | A | I | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | 1981 | D | A | I | JFMAMJ JASOND | | | | | | | | |
| | 1982 | D | A | I | JFMAMJ JASOND | | | | | | | | |
| TROMSO | 1930 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| TRO | 1931 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| (069.66 18.95) | 1932 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1933 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1934 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1935 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1936 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1937 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1938 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1939 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1940 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1941 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1942 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1943 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1944 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1945 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1946 | D | A | | | | | A I | JFMAMJ JASOND | | | | |
| | 1947 | D | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | 1948 | D | KA | | | | | A I | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TROMSO | D 1949 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| TRO | D 1950 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| (069.66 18.95) | D 1951 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1952 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D 1953 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1954 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1955 | KA | | | | | A | JFMAMJ JASOND | | | | |
| | D 1956 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D 1957 | KA | D | JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D 1958 | KA | D | JF AMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1959 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1960 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1961 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1962 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1963 | KA | | | | | A CD | JFMAMJ JASOND | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMA | A | JFMA |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1983 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1984 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| TSUMEB | D 1964 | A | ABCD | ASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| TSU | D 1965 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| (-19.22 17.70) | D 1966 | A | A | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1967 | A | A | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1968 | A | A | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1969 | A | A | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1970 | A | A | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1971 | A | A | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1972 | A | A | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1973 | A | A | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1974 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D 1975 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D 1976 | A | | | | | ABCDEI | JFMAMJ JASOND | E | JFMAMJ JASOND | | |
| | D 1977 | A | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D 1978 | A | | | | | ABCD I | JFMAMJ JASOND | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TSUMEB | D | 1979 | A | | | | | ABCD I | JFMAMJ JASOND | | | | |
| TSU | D | 1980 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| (-19.22 17.70) | D | 1981 | A | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1982 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | A | | | | | A CD | JFMAMJ JASOND | | | | |
| TUCSON | D | 1909 | | A | ND | | | A EI | JFMAMJ JASOND | AB EI | OND | | |
| TUC | D | 1910 | A | A | MA ASO | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| (032.25 249.17) | D | 1911 | A | A | FMAM ASO D | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1912 | A | A | A ASO D | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1913 | A | A | J MA SO | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1914 | A | A | A J J SON | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1915 | A | A | MA J ASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1916 | A | A | J MAM JA ON | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1917 | A | A | JF A J JAS D | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1918 | A | A | MAMJ ASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1919 | A | A | JF M ASO D | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1920 | A | A | MAM S D | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1921 | A | A | AM S N | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1922 | A | A | J M SO | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1923 | A | A | M J SO | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1924 | A | A | J MJ O | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1925 | A | A | ASO | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1926 | A | A | JFMA J SO | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1927 | A | A | J MAM JA O | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1928 | A | A | M JASO | | | A E | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1929 | A | A | FM JA N | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1930 | A | A | M MJ S D | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1931 | A | A | F MJ SO | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1932 | A | A | M M A O | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1933 | A | A | AM JAS | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1934 | A | A | M M J S D | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1935 | A | A | M MJ J S | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1936 | A | A | A J ON | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1937 | A | A | FMAM ASO | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1938 | KA | A | J A J SO | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1939 | KA | A | JFMAMJ JASOND | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1940 | KA | A | JFMAMJ JASOND | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1941 | KA | A | JFMAMJ JASOND | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1942 | KA | A | JFMAMJ JASOND | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1943 | KA | A | JFMAMJ JASOND | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1944 | KA | A | JFMAMJ JASOND | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1945 | KA | A | JFMAMJ JASOND | | | A DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1946 | KA | A | JFMAMJ JASOND | | | A DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1947 | KA | A | JFMAMJ JASOND | | | A DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1948 | KA | A | JFMAMJ JASOND | | | A EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1949 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1950 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1951 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1952 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1953 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1954 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TUCSON | D | 1955 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| TUC | D | 1956 | KA | A C | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| (032.25 249.17) | D | 1957 | KA | ABCD | JFMAMJ JASOND | ABC | JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | ASOND |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JF |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | ABC | JF | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | J S ND* |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB I | JFMAMJ JASOND | A | MAMJ JASOND* |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND* |
| TULSA | D | 1961 | | ABCD | JASOND | | | | | | | | |
| TUL | D | 1962 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| (035.91 264.21) | D | 1963 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1964 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1965 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1966 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1967 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1968 | A | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1971 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1977 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1979 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1980 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1981 | | AB D | JFMAMJ JASOND | | | | | | | | |
| | D | 1982 | A | ABCD | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TULSA | D 1983 | A | A | JFMAMJ JASOND | | | | | | | | |
| TUL | D 1984 | A | A | JFMAMJ JASOND | | | | | | | | |
| (035.91 264.21) | | | | | | | | | | | | |
| UGUT | D 1974 | | AB D | MAMJ JASOND | | | | | | | | |
| UGT | D 1975 | | B | JFMAMJ JASOND | | | | | | | | |
| (061.00 074.00) | D 1976 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1977 | | B | JFMAMJ JASOND | | | | | | | | |
| | D 1978 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1979 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| UJJAIN | D 1975 | | B | JASOND | | | B | JASOND | | | | |
| UJJ | D 1976 | | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| (023.18 75.78) | D 1977 | | B | JFM | | | B | JFM | | | | |
| | D 1978 | | B | JFMAMJ JASOND | | | B | JFMAMJ JASOND | | | | |
| | D 1979 | A | B | JFMA OND | | | | | | | | |
| UKHTA | D 1974 | | C | MA OND | | | | | | | | |
| UKH | | | | | | | | | | | | |
| (060.50 074.00) | | | | | | | | | | | | |
| ULAN BATOR | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| UBA | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (047.85 107.05) | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | KA | | | | | | | | | | |
| | D 1972 | KA | | | | | | | | | | |
| | D 1973 | KA | | | | | | | | | | |
| | D 1974 | KA | | | | | | | | | | |
| | D 1975 | KA | | | | | | | | | | |
| | D 1976 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | K | | | | | B | JFMAMJ JASOND | | | | |
| | D 1979 | K | | | | | | | | | | |
| | D 1980 | K | | | | | | | | | | |
| | D 1981 | K | | | | | | | | | | |
| | D 1982 | K | | | | | | | | | | |
| | D 1983 | K | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| URUMQI | D 1980 | | | | | | A | JFMAMJ JASOND | | | | |
| WMQ | D 1981 | | | | | | A | JFMAMJ JASOND | | | | |
| (043.82 087.70) | | | | | | | | | | | | |
| VAL JOYEUX | D 1923 | A | | | | | A | JFMAMJ JAOSND | | | | |
| VLJ | D 1924 | A | | | | | A | JFMAMJ JASOND | | | | |
| (048.82 2.02) | D 1925 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1926 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1927 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1928 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1929 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1930 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D 1931 | A | | | | | A | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR | COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VAL JOYEUX | D | 1932 | A | | | | | A C | JFMAMJ JASOND | | | | |
| VLJ | D | 1933 | A | | | | | A C | JFMAMJ JASOND | | | | |
| (048.82 2.02) | D | 1934 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1935 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1936 | A | | | | | A | JFMAMJ JASOND | | | | |
| VALENTIA | D | 1954 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| VAL | D | 1955 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| (051.93 349.75) | D | 1956 | KA | | | | | A I | JFMAMJ JASOND | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | A I | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | A C I | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | A C EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABC EI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | A CD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABC I | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | BCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | BCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | BCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | BCD | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1984 | K | A | JFMAMJ | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | |
| VASSOURAS | D | 1915 | A | | | | | C | JFMAMJ JASOND | | | | |
| VSS | D | 1916 | A | | | | | C | JFMAMJ JASOND | | | | |
| (-22.40 316.35) | D | 1917 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1918 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1919 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1920 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1921 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1922 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1923 | A | | | | | C | JFMAMJ JASOND | | | | |
| | D | 1924 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1925 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1926 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1927 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1928 | A | | | | | A | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | | WDC | HOURLY VALUES ON TAPE | | WDC | 2.5-MINUTE 1.0-MINUTE(*) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VASSOURAS | D 1929 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| VSS | D 1930 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| (-22.40 316.35) | D 1931 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1932 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1933 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1934 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1935 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1936 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1937 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1938 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1939 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1940 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1941 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1942 | A | | | | | | A | I | JFMAMJ JASOND | | | | | | |
| | D 1943 | A | | | | | | | I | JFMAMJ JASOND | | | | | | |
| | D 1944 | A | | | | | | | | | | | | | | |
| | D 1945 | A | | | | | | | | | | | | | | |
| | D 1946 | A | | | | | | | | | | | | | | |
| | D 1947 | A | | | | | | | | | | | | | | |
| | D 1948 | A | | | | | | | | | | | | | | |
| | D 1949 | A | | | | | | A | C | I JFMAMJ JASOND | | | | | | |
| | D 1950 | A | | | | | | A | C | I JFMAMJ JASOND | | | | | | |
| | D 1951 | A | | | | | | A | C | I JFMAMJ JASOND | | | | | | |
| | D 1952 | KA | | | | | | A | C | I JFMAMJ JASOND | | | | | | |
| | D 1953 | KA | | | | | | A | C | I JFMAMJ JASOND | | | | | | |
| | D 1954 | KA | | | | | | A | D | JFMAMJ JASOND | | | | | | |
| | D 1955 | KA | | | | | | A | D | JFMAMJ JASOND | | | | | | |
| | D 1956 | KA | | | | | | A | D | JFMAMJ JASOND | | | | | | |
| | D 1957 | KA | ABCD | | JASOND | | | ABCD | | JFMAMJ JASOND | | | | | | |
| | D 1958 | KA | ABCD | JFMAMJ | JASOND | | | ABCD | | JFMAMJ JASOND | | | | | | |
| | D 1959 | KA | ABCD | JFMAMJ | JASOND | | | ABCDE | | JFMAMJ JASOND | AB | EI | SOND | A | | SOND |
| | D 1960 | KA | A | JFMAMJ | JASOND | | | ABCD | | JFMAMJ JASOND | | | | | | |
| | D 1961 | KA | A | JFMAMJ | JASOND | | | ABCD | | JFMAMJ JASOND | | | | | | |
| | D 1962 | KA | A | JFMAMJ | JASOND | | | ABCD | | JFMAMJ JASOND | | | | | | |
| | D 1963 | KA | A | JFMAMJ | JASOND | | | | | | | | | | | |
| | D 1964 | KA | ABCD | JFMAMJ | JASOND | | | | | | | | | | | |
| | D 1965 | A | A | JFMAMJ | JASOND | | | | | | | | | | | |
| | D 1966 | A | A | JFMAMJ | JASOND | | | | | | | | | | | |
| | D 1967 | A | A | JFMAMJ | JASOND | | | A | | JFMAMJ JASOND | AB | | JFMAMJ JASOND | | | |
| | D 1968 | A | A | JFMAMJ | JASOND | | | A | | JFMAMJ JASOND | AB | | JFMAMJ JASOND | | | |
| | D 1969 | A | A | JFMAMJ | JASOND | | | A | | JFMAMJ JASOND | AB | | JFMAMJ JASOND | | | |
| | D 1970 | A | AB | JFMAMJ | JASOND | | | A | | JFMAMJ JASOND | AB | | JFMAMJ JASOND | | | |
| | D 1971 | A | A | JFMAMJ | JASOND | | | A | | JFMAMJ JASOND | AB | | JFMAMJ JASOND | | | |
| | D 1972 | A | A | JFMAMJ | JASOND | | | A | | JFMAMJ JASOND | | | | | | |
| | D 1973 | A | A | JFMAMJ | JASOND | | | | | | | | | | | |
| | D 1974 | A | A | JFMAMJ | JASOND | | | | | | | | | | | |
| | D 1975 | A | A | JFMAMJ | JASOND | | | | | | | | | | | |
| | D 1976 | A | ABCD | JFMAMJ | JASOND | | | | | | | | | | | |
| | D 1977 | A | ABCD | JFMAMJ | JASOND | | | | | | | | | | | |
| | D 1978 | A | ABCD | JFMAMJ | JASOND | | | | | | | | | | | |
| | D 1979 | A | A | JFMAMJ | | | | A | | JFMAMJ JASOND | AB | | SOND | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VASSOURAS | D | 1980 | A | ABCD | JFMAMJ JASOND | | | A | JASOND | A | FMA | | |
| VSS | D | 1981 | A | | | | | A | JFMAMJ J | | | | |
| (-22.40 316.35) | | | | | | | | | | | | | |
| VICTORIA | D | 1956 | KA | | | | | | | | | | |
| VIC | D | 1957 | KA | ABCD | JASOND | | | ABCD I | JASOND | | | | |
| (048.52 236.58) | D | 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | | | | | ABC I | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | | | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | SOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFM |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | A | ND | A | ND* |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1981 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1982 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1983 | KA | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1984 | K | ABCD | JFMAMJ JAS | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1985 | K | | | | | | | | | | |
| VIEQUES | D | 1903 | | A | AMJ JASOND | | | A C E | MAMJ JASOND | A E | MAMJ JASOND | | |
| VQS | D | 1904 | A | A | JFMAMJ JASOND | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| (018.15 294.55) | D | 1905 | A | A | FMA JAS N | | | A E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1906 | A | A | F M AS D | | | A E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1907 | A | A | FM M JA ON | | | A E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1908 | A | A | M M JAS | | | A E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1909 | A | A | J M M ASO | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1910 | A | A | MA ASO | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1911 | A | A | FMAM ASO D | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1912 | A | A | A A O D | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1913 | A | A | MA SO | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1914 | A | A | A J J SON | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1915 | A | A | A J ASOND | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1916 | A | A | J MAM JA ON | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1917 | A | A | JF A J JASO D | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1918 | A | A | MAMJ ASOND | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D | 1919 | A | A | JF M ASO D | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VIEQUES | D 1920 | A | A | MAM S D | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| VQS | D 1921 | A | A | AM S N | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| (018.15 294.55) | D 1922 | A | A | J M SO | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D 1923 | A | A | M J SO | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASOND | | |
| | D 1924 | A | A | J MJ O | | | A C E | JFMAMJ JASOND | A E | JFMAMJ JASO | | |
| VLADIVOSTOK | D 1952 | K | | | | | | | | | | |
| VLA | D 1953 | K | | | | | | | | | | |
| (043.78 132.03) | D 1954 | K | | | | | | | | | | |
| | D 1955 | K | | | | | | | | | | |
| | D 1956 | K | | | | | ABCD | JASOND | | | | |
| | D 1957 | K | ABCD | JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (043.68 132.17) | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KA | ABCD | J AMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1983 | KA | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D 1984 | K | ABCD | JFMAMJ | | | | | | | | |
| VOSTOK | D 1958 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| VOS | D 1959 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (-78.45 106.87) | D 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1962 | K | | | | | | | | | | |
| | D 1963 | KA | ABCD | MJ JASOND | | | ABCD | MJ JASOND | | | | |
| | D 1964 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D 1965 | KAQ | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | 0 |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | M |
| | D 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | A | JFMAMJ JASOND |
| | D 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | | | | |
| | D 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | NORMAL MAGNETOGRAMS WDC | NORMAL MAGNETOGRAMS | RAPID RUN MAGNETOGRAMS WDC | RAPID RUN MAGNETOGRAMS | HOURLY VALUES ANY MEDIUM WDC | HOURLY VALUES ANY MEDIUM | HOURLY VALUES ON TAPE WDC | HOURLY VALUES ON TAPE | 2.5-MINUTE 1.0-MINUTE(*) WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VOSTOK | D 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| VOS | D 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (-78.45 106.87) | D 1973 | KA | ABCD | JFMAMJ JASOND | | | A CD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1976 | KA | ABCD | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | KA | AB D | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1982 | K | AB | JFMAMJ JASOND | | | AB | JFMAMJ JASOND | | | | |
| | D 1983 | K | | | | | | | | | | |
| | D 1984 | K | | | | | | | | | | |
| WAKE ISLAND | D 1978 | | | | | | | | | | A | MAMJ JASOND* |
| WKE | D 1979 | | | | | | | | | | A | JFMAMJ JASOND* |
| (019.20 166.70) | D 1980 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1981 | | | | | | | | | | A | JFMAMJ JASOND* |
| | D 1982 | | | | | | | | | | A | JFMAM * |
| WATHEROO | D 1919 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| WAT | D 1920 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| (-30.32 115.88) | D 1921 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1922 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1923 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1924 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1925 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1926 | A | | | | | A | E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1927 | A | | | | | A | E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1928 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1929 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1930 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1931 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1932 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1933 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1934 | A | | | | | A | E JFMAMJ JASOND | AB | E JFMAMJ JASOND | | |
| | D 1935 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1936 | A | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1937 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1938 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1939 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1940 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1941 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1942 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1943 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1944 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1945 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1946 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1947 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1948 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1949 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1950 | KA | | | | | A | EI JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WATHEROO | D 1951 | KA | | | | | A DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| WAT | D 1952 | KA | | | | | A DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| (-30.32 115.88) | D 1953 | KA | | | | | A DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1954 | KA | | | | | A DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1955 | KA | | | | | A DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1956 | KA | | | | | A DEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1957 | KA | ABCD | JASOND | ABC | JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D 1959 | KA | | | | | | | | | | |
| WESTON | D 1960 | | A | FMAMJ JASOND | | | A | JAS | | | | |
| WES | D 1961 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| (042.38 288.68) | D 1962 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1963 | | A | JFMAMJ JA D | | | A | JFMAMJ JASOND | | | | |
| | D 1964 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1965 | | A C | JFMAMJ JASOND | B | MAMJ JASOND | A | JFMAMJ JASOND | | | | |
| | D 1966 | | A C | JFMAMJ JASOND | B | JFMAMJ JASOND | A | JFMAMJ JASOND | | | | |
| | D 1967 | | A C | JFMAMJ JASOND | B | JFMAMJ JASOND | A | JFMAMJ JASOND | | | | |
| | D 1968 | | A C | JFMAMJ JASOND | B | JFMAMJ J | A | JFMAMJ JASOND | | | | |
| | D 1969 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1970 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1971 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1972 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1973 | | A | JFMAMJ JASOND | | | A | JFMAMJ JASOND | | | | |
| | D 1974 | | A | JFMAMJ JASOND | | | A | JFMAMJ | | | | |
| | D 1975 | | A | JFMAMJ JASOND | | | | | | | | |
| | D 1976 | | A | JFMAM | | | | | | | | |
| | D 1978 | | A | S | | | | | | | | |
| WHITESHELL | X 1972 | | A | JFMAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| WHS | X 1973 | | A | JFMAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| (049.75 264.75) | X 1974 | | A | JFMAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| | X 1975 | | A | JFMAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| | X 1976 | | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1977 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1978 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | X 1979 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1980 | A | ABCD | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X 1981 | | A | JFMAMJ JAS | | | A | JFMA | | | | |
| WIEN-KOBENZL | D 1941 | | | | | | AB | JFMAMJ JASOND | | | | |
| WIK | D 1942 | | | | | | AB | JFMAMJ JASOND | | | | |
| (048.20 16.24) | D 1943 | | | | | | I | JFMAMJ JASOND | | | | |
| | D 1944 | | | | | | I | JFMAMJ JASOND | | | | |
| | D 1945 | | | | | | I | JFMAMJ JASOND | | | | |
| | D 1946 | | | | | | I | JFMAMJ JASOND | | | | |
| | D 1947 | | | | | | I | JFMAMJ JASOND | | | | |
| | D 1948 | | | | | | I | JFMAMJ JASOND | | | | |
| | D 1949 | | | | | | I | JFMAMJ JASOND | | | | |
| | D 1950 | | | | | | I | JFMAMJ JASOND | | | | |
| | D 1951 | | | | | | I | JFMAMJ JASOND | | | | |
| | D 1952 | | | | | | I | JFMAMJ JASOND | | | | |
| | D 1953 | | | | | | I | JFMAMJ JASOND | | | | |

| OBSERVATORY | YEAR COMP | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WIEN-KOBENZL | D 1954 | | | | | | | I JFMAMJ JASOND | | | | |
| WIK | D 1955 | A | | | | | | I JFMAMJ JASOND | | | | |
| (048.27 16.32) | D 1956 | A | | | | | A | I JFMAMJ JASOND | | | | |
| | D 1957 | KA | AB D | JASOND | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1958 | KA | AB D | JFMAMJ JASOND | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1959 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1960 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1961 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1962 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1963 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1964 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1965 | A | ABCD | JFMAMJ JASOND | | | ABCDEI | JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1966 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1967 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1968 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1969 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1970 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1971 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1972 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1973 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1974 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1975 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1976 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1977 | A | | | | | ABCD | I JFMAMJ JASOND | | | | |
| | D 1978 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1979 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1980 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| | D 1981 | A | | | | | ABCD | JFMAMJ JASOND | | | | |
| WILHELMSHAVEN | D 1882 | | | | | | C | D | | | | |
| WLH | D 1883 | | | | | | C | JFMAMJ JASOND | | | | |
| (053.53 8.15) | | | | | | | | | | | | |
| WILKES | D 1957 | KA | ABCD | JFMAMJ JASOND | ABC | JASOND | ABCDEI | JASOND | AB | EI JASOND | | J |
| WIL | D 1958 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDEI | JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | J |
| (-66.25 110.58) | D 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1960 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1961 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | A E | ASOND | AB | EI ASOND | | J |
| | D 1962 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1963 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | | | | | | |
| | D 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | AB DE | SOND | AB | EI SOND | | |
| | D 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | AB DE | JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D 1966 | KA | ABCD | JFMAMJ JASOND | ABA | JFMAMJ JASOND | A DE | J | AB | EI J | | |
| | D 1967 | K | ABCD | J | | | | | | | | |
| WINGST | D 1940 | KA | | | | | | | | | | |
| WNG | D 1941 | KA | | | | | | | | | | |
| (053.74 9.07) | D 1942 | KA | | | | | | | | | | |
| | D 1943 | KA | | | | | C | JFMAMJ JASOND | | | | |
| | D 1944 | KA | | | | | | | | | | |
| | D 1945 | KA | | | | | | | | | | |
| | D 1946 | KA | | | | | | | | | | |
| | D 1947 | KA | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WINGST | D | 1948 | KA | | | | | C | JFMAMJ JASOND | | | | |
| WNG | D | 1949 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| (053.74 9.07) | D | 1950 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1951 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1952 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1953 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1954 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1955 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1956 | KA | | | | | A C | JFMAMJ JASOND | | | | |
| | D | 1957 | KA | ABC | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1958 | KA | ABC | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABC | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB | EI JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JAS | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JAS | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | C | OND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | A | JFM OND | | | | |
| | D | 1983 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | A | AMJ JASOND | | | | |
| | D | 1984 | K | A D | JFMAMJ JASOND | | | A | J | | | | |
| | D | 1985 | K | | | | | | | | | | |
| WINNIPEG | D | 1973 | | A | MJ JASOND | | | | | | | | |
| WNP | D | 1974 | | ABC | JFMAMJ JASOND | | | | | | | | |
| (049.63 262.87) | D | 1975 | | ABC | JFMAMJ JAS | | | | | | | | |
| WITTEVEEN | D | 1938 | A | | | | | A | I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| WIT | D | 1939 | A | | | | | A | I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| (052.81 6.67) | D | 1940 | KA | | | | | A | I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1941 | KA | | | | | A | I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1942 | KA | | | | | A | I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1943 | KA | | | | | A | I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1944 | KA | | | | | A | I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1945 | KA | | | | | A | I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1946 | KA | | | | | A | I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |
| | D | 1947 | KA | | | | | A | I JFMAMJ JASOND | AB | JFMAMJ JASOND | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | | WDC | RAPID RUN MAGNETOGRAMS | | WDC | HOURLY VALUES ANY MEDIUM | | | WDC | HOURLY VALUES ON TAPE | | | WDC | 2.5-MINUTE 1.0-MINUTE(*) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WITTEVEEN | D | 1948 | KA | | | | | | | A | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| WIT | D | 1949 | KA | | | | | | | A C | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| (052.81 6.67) | D | 1950 | KA | | | | | | | A | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1951 | KA | | | | | | | A | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1952 | KA | | | | | | | A | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1953 | KA | | | | | | | A | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1954 | KA | | | | | | | A C | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1955 | KA | | | | | | | A C | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1956 | KA | | | | | | | A | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1957 | KA | ABCD | | JASOND | ABC | | JASOND | ABCD | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1958 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1959 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1960 | KA | ABCD | JFMAMJ | JASOND | | | | ABCD | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1961 | KA | ABCD | JFMAMJ | JASOND | | | | ABCD | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1962 | KA | ABCD | JFMAMJ | JASOND | | | | ABCD | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1963 | KA | ABCD | JFMAMJ | JASOND | | | | ABCD | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1964 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCDE | I | JFMAMJ | JASOND | AB | EI | JFMAMJ | JASOND | | | |
| | D | 1965 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCDE | | JFMAMJ | JASOND | AB | EI | JFMAMJ | JASOND | | | |
| | D | 1966 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | I | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1967 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1968 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1969 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1970 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1971 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1972 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1973 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1974 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1975 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1976 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1977 | KA | ABCD | JFMAMJ | JASOND | A | JFMAMJ | JASOND | A CD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1978 | KA | ABCD | JFMAMJ | JASOND | ABC | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1979 | KA | AB D | JFMAMJ | JASOND | A | JFMAMJ | JASOND | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1980 | KA | ABCD | JFMAMJ | JASOND | A | JFMAMJ | | ABCD | | JFMAMJ | JASOND | AB | | JFMAMJ | JASOND | | | |
| | D | 1981 | KA | ABCD | JFMAMJ | JASOND | | | | ABCD | | JFMAMJ | JASOND | A | | JFMAMJ | JASOND | | | |
| | D | 1982 | KA | ABCD | JFMAMJ | JASOND | | | | A | | JFMAMJ | JASOND | A | | JFMAMJ | JASOND | | | |
| | D | 1983 | K | | | | | | | | | | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | | | | | | | | |
| | D | 1985 | K | | | | | | | | | | | | | | | | | |
| WUHAN | D | 1980 | | | | | | | | A | | JFMAMJ | JASOND | | | | | | | |
| WHN | D | 1981 | | | | | | | | A | | JFMAMJ | JASOND | | | | | | | |
| (030.53 114.56) | | | | | | | | | | | | | | | | | | | | |
| YAKUTSK | D | 1939 | KA | | | | | | | | | | | | | | | | | |
| YAK | D | 1940 | KA | | | | | | | | | | | | | | | | | |
| (062.02 129.72) | D | 1941 | KA | | | | | | | | | | | | | | | | | |
| | D | 1942 | KA | | | | | | | | | | | | | | | | | |
| | D | 1943 | KA | | | | | | | | | | | | | | | | | |
| | D | 1944 | KA | | | | | | | | | | | | | | | | | |
| | D | 1945 | KA | | | | | | | | | | | | | | | | | |
| | D | 1946 | KA | | | | | | | | | | | | | | | | | |
| | D | 1952 | A | | | | | | | | | | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YAKUTSK | D | 1953 | A | | | | | | | | | | |
| YAK | D | 1954 | A | | | | | | | | | | |
| (062.02 129.72) | D | 1955 | KA | | | | | | | | | | |
| | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCD | JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | ABC | SOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | ABC | JFMAMJ | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | J SOND |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ JASOND | A | JFMAMJ JA ND |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | MAMJ ASOND | A | MJ ASOND |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | JFMAMJ | A | JFMAMJ |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | AB EI | MJ JASO | A | JAS |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCDE | JFMAMJ JASOND | ABC EI | JFMAMJ JASOND | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | AB D | JFMAMJ JASOND | | | AB D | JFMAMJ JASOND | | | | |
| | D | 1983 | K | A | JFMAMJ JASOND | | | | | | | | |
| | D | 1984 | K | | | | | | | | | | |
| YAUCA | D | 1957 | | ABCD | SOND | | | ABCD | SOND | | | | |
| YAU | D | 1958 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| (-15.53 285.33) | D | 1959 | | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | | ABCD | J | | | ABCD | J | | | | |
| YELLOWKNIFE | D | 1957 | | ABCD | JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| YKC | D | 1958 | | ABCD | JFMAMJ JASOND | | | ABCD I | JFMAMJ JASOND | | | | |
| (062.40 245.50) | | | | | | | | | | | | | |
| | D | 1972 | | A | JFMAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| | D | 1973 | | A | JFMAMJ JASOND | | | C | JFMAMJ JASOND | | | | |
| | D | 1974 | | ABCD | JFMAMJ JASOND | | | ABC | JFMAMJ JASOND | A | OND | A | OND* |
| | D | 1975 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1976 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | D | 1977 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1978 | A | A CD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1979 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1980 | A | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1981 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1982 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | AB | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| | X | 1983 | A | ABCD | JFMAMJ JASOND | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YELLOWKNIFE | X | 1984 | | ABCD | JFMAMJ JAS | | | A | JFMAMJ JASOND | A | JFMAMJ JASOND | A | JFMAMJ JASOND* |
| YKC | | | | | | | | | | | | | |
| ( 62.40 245.50) | | | | | | | | | | | | | |
| YUZHNO SAKHALINS | D | 1954 | KA | | | | | | | | | | |
| YSS | D | 1955 | KA | | | | | | | | | | |
| (046.95 142.72) | D | 1956 | KA | | | | | | | | | | |
| | D | 1957 | KA | ABCD | JASOND | | | ABCD | JASOND | | | | |
| | D | 1958 | KA | ABCD | JFMAMJ JASOND | A C | FMAMJ J | ABCD | JFMAMJ JASOND | | | | |
| | D | 1959 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCD | JFMAMJ JASOND | | | | |
| | D | 1960 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1961 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1962 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1963 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1964 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1965 | KA | ABCD | JFMAMJ JASOND | A C | JFMAMJ JASOND | ABCDE | JFMAMJ JASOND | AB E | JFMAMJ JASOND | | |
| | D | 1966 | KA | ABCD | JFMAMJ JAS | | | ABCD | JFMAMJ JAS | A | M | A | M |
| | D | 1967 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1968 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1969 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1970 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1971 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1972 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1973 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1974 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1975 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1976 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1977 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1978 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1979 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1980 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1981 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1982 | KA | ABCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1983 | KA | BCD | JFMAMJ JASOND | | | ABCD | JFMAMJ JASOND | | | | |
| | D | 1984 | K | | | | | A | JFMAMJ | | | | |
| ZARIA | D | 1960 | | B | J AMJ JAS | | | | | | | | |
| ZAR | D | 1961 | | B | OND | | | | | | | | |
| (011.15 007.65) | D | 1962 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1963 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1964 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1965 | | ABCD | JFMAMJ JASOND | | | | | | | | |
| | D | 1966 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1967 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1968 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1969 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1970 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1971 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1972 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1973 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1974 | | AB | JFMAMJ JASOND | | | | | | | | |
| | D | 1975 | | AB | JFMAMJ JASOND | | | | | | | | |

| OBSERVATORY | COMP | YEAR | KAQ | WDC | NORMAL MAGNETOGRAMS | WDC | RAPID RUN MAGNETOGRAMS | WDC | HOURLY VALUES ANY MEDIUM | WDC | HOURLY VALUES ON TAPE | WDC | 2.5-MINUTE 1.0-MINUTE(*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZARIA | D | 1976 | | AB | JFMAMJ JASOND | | | | | | | | |
| ZAR | D | 1977 | | AB | JFMAMJ JASOND | | | | | | | | |
| (011.15 007.65) | | | | | | | | | | | | | |
| ZIKAWEI | D | 1889 | A | | | | | A | JFMAMJ JASOND | | | | |
| ZKW | D | 1890 | A | | | | | A | JFMAMJ JASOND | | | | |
| (031.21 121.44) | D | 1891 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1892 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1893 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1894 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1895 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1896 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1897 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1898 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1899 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1900 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1901 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1902 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1903 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1904 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1905 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1906 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1907 | A | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1908 | A | | | | | A | JF ASOND | | | | |
| | D | 1909 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1910 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1911 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1912 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1913 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1914 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1915 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1916 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1921 | | | | | | A | JFMAMJ JASOND | | | | |
| | D | 1922 | | | | | | A | JFMAMJ JASOND | | | | |

## SECTION V

### CATALOG OF HIGH-RESOLUTION GEOMAGNETIC DIGITAL DATA (TABLE 9)

High-resolution (10-second) geomagnetic digital data were acquired from a network of sites in North and South America, the Caribbean, and Pacific Islands during years of the International Magnetospheric Study (IMS, 1976-1979). After some smoothing and noise removal, 1-minute average values were prepared and are listed in the main catalog given in Section IV. The sometimes noisy 10-sec data from these temporary sites were transmitted via GOES satellite communication platforms to the NOAA/ERL Space Environment Laboratory where it was partially smoothed by removal of noise spikes and then used in their forecasting activity. Copies of the full resolution tapes were deposited with WDC-A for STP at the end of each month. After the end of the observational phase of the IMS, many of the network stations continue operating through the MAGSAT satellite interval and a reduced number have continue transmitting 10 second data though 1982. Some continue in the RGON system but only at 1-minute intervals.

Station names and their international 3-letter codes are given for each high-resolution station. Also given are the years and months of data acquisition at each site and the symbol of the WDC where the data are available. Coordinate listings for these sites may be found in Tables 3 and 4 of Section II.

Owing to the quantity of data involved and the complex encoding algorithm that combined into each record data from all sites, only copies on the original binary magnetic tapes can be provided by WDC-A for STP.

TABLE 9

## HIGH-RESOLUTION GEOMAGNETIC DIGITAL DATA

| OBSERVATORY | CODE | YEAR | WDC | 10-SECOND DATA | |
|---|---|---|---|---|---|
| ARCTIC VILLAGE | AVI | 1978 | A | MAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAM | A OND |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| BACK | BKC | 1977 | A | | N |
| | | 1978 | A | AMJ | JASO |
| | | 1979 | A | FMAMJ | JASOND |
| | | 1980 | A | FMAMJ | J |
| BOULDER | BOU | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | JASOND |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| CAPE PARRY | CPY | 1977 | A | | ND |
| | | 1978 | A | JFMAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | JASOND |
| | | 1981 | A | JFMAMJ | JA OND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| COLLEGE | CMO | 1981 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| ESKIMO POINT | EKP | 1977 | A | | SOND |
| | | 1978 | A | MAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JAS D |
| | | 1980 | A | JFMA | |
| | | 1981 | A | J | J |
| EUSEBIO | EUS | 1977 | A | | JASOND |
| | | 1978 | A | MAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | JASOND |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMA | |
| FORT SIMPSON | FSP | 1977 | A | | JASOND |
| | | 1978 | A | J MAMJ | JASOND |
| | | 1979 | A | JFM | JA OND |
| | | 1980 | A | JFMAMJ | JASOND |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| FORT SMITH | FSM | 1977 | A | | D |
| | | 1978 | A | A J | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | J | SOND |
| | | 1981 | A | FMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| FORT YUKON | FYU | 1977 | A | | S ND |
| | | 1978 | A | MA | ASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | JASOND |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| GILLAM | GIM | 1977 | A | | OND |
| | | 1978 | A | MA J | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | J |
| HONOLULU | HON | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| INUVIK | INK | 1977 | A | | OND |
| | | 1978 | A | JFMAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | JASOND |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| ISLAND LAKE | ISL | 1977 | A | JFMAMJ | OND |
| | | 1978 | A | FMAMJ | JAS |
| | | 1979 | A | JFMAMJ | JAS D |
| | | 1980 | A | JFMAMJ | J |
| | | 1981 | A | J | JASOND |
| | | 1982 | A | JFMAM | |

| OBSERVATORY | CODE | YEAR | WDC | 10-SECOND DATA | |
|---|---|---|---|---|---|
| JOHNSON POINT | JOP | 1977 | A | | J ND |
| | | 1978 | A | MAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | M | |
| | | 1981 | A | | JASOND |
| | | 1982 | A | JFMA | |
| LYNN LAKE | LYN | 1977 | A | | ASOND |
| | | 1978 | A | MAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | JASOND |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| MIDWAY | MDY | 1978 | A | MAMJ | JASOND |
| | | 1979 | A | JFMAM | JASOND |
| | | 1980 | A | JFMAM | J |
| | | 1981 | A | FMA | |
| NORMAN WELLS | NOW | 1977 | A | | JASOND |
| | | 1978 | A | JFMAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | JASON |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| PELLY BAY | PEB | 1977 | A | | JASOND |
| | | 1978 | A | JF AMJ | JASOND |
| | | 1979 | A | JFM | |
| RANKIN INLET | RIT | 1977 | A | | AS ND |
| | | 1978 | A | MAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMA | |
| | | 1981 | A | | OND |
| | | 1982 | A | JF AM | |
| SACHS HARBOUR | SAH | 1977 | A | | SOND |
| | | 1978 | A | MAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | JASOND |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |

| OBSERVATORY | CODE | YEAR | WDC | 10-SECOND DATA | |
|---|---|---|---|---|---|
| SAN JUAN | SJG | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| TALKEETNA | TLK | 1977 | A | | A N |
| | | 1978 | A | AMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | JASOND |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| TUCSON | TUC | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAMJ | JASOND |
| | | 1983 | A | JFMAMJ | JASOND |
| WAKE ISLAND | WKE | 1978 | A | MAMJ | JASOND |
| | | 1979 | A | JFMAMJ | JASOND |
| | | 1980 | A | JFMAMJ | JASOND |
| | | 1981 | A | JFMAMJ | JASOND |
| | | 1982 | A | JFMAM | |

SECTION VI

## Geomagnetic Indices

This section lists the various kinds of geomagnetic indices and the forms in which they are held. These indices include: AE, DST, Q,K, Kn, Ks, Km, Kp, Ap, Cp, Ci, C9, and aa.

1. Auroral Electrojet (AE) indices (including Supplementary AU, AL and AO indices)

### Magnetic Tape

Hourly Values

| | | |
|---|---|---|
| AE | July 1957 | December 1981 |
| AL, AO and AU | September 1964 | December 1981 |

2.5-Minute Values

| | | |
|---|---|---|
| AE, AL, AO and AU | September 1964 | December 1974 |

1.0-Minute Values *

| | | |
|---|---|---|
| AE, AL, AO and AU | January 1975 | December 1975 |
| | January 1978 | December 1981 |

### Microfilm

Hourly Values (Tabular)

| | | |
|---|---|---|
| AE, AU, AL and AO | July 1957 | December 1964 |
| | January 1966 | December 1975 |
| | January 1978 | December 1981 |
| AE Plots | July 1957 | December 1964 |
| | January 1966 | December 1975 |
| | January 1978 | December 1981 |

2.5-Minute Values

| | | |
|---|---|---|
| AE, AU and AL Plots | September 1964 | December 1974 |
| AO Plots | January 1966 | December 1974 |

1.0-Minute Values

| | | |
|---|---|---|
| AE, AU, AL and AO Plots | January 1975 | December 1975 |
| | January 1978 | December 1981 |

*Beginning with January 1975, WDC-A for STP has computed AE indices with 1-minute resolution but stopped routine index derivation after completing 1975. WDC-C2 (Geomagnetism) in Kyoto, Japan, produced 1-minute AE indices for the IMS years 1978 - 1979 and has continued production through 1981. Cooperation between WDC-A (Boulder) and WDC-C2 (Kyoto) has produced provisional AE indices for NASA for part of 1982 and all of 1983.

### Publications

Hourly Values of the Auroral Electrojet Activity Index AE, UAG-R Series, Geophysical Institute, University of Alaska, July 1957 - December 1964.

The hourly values of AE, AU, AL and AO and the plots derived from the 2.5-minute or 1.0-minute values of the same indices have been published by WDC-A for Solar-Terrestrial Physics in the following issues of its UAG Report series:

| Data for | Published in | Data for | Published in |
|---|---|---|---|
| 1966 | UAG-37 AE(10) | 1971 | UAG-39 AE(11) |
| 1967 | UAG-33 AE(10) | 1972 | UAG-45 AE(11) |
| 1968 | UAG-29 AE(11) | 1973 | UAG-47 AE(11) |
| 1969 | UAG-31 AE(11) | 1974 | UAG-59 AE(11) |
| 1970 | UAG-22 AE(11) | 1975(Jan-Jun) | UAG-73 AE(12) |
| | | 1975(Jul-Dec) | UAG-76 AE(12) |
| 1978(Jan-Jun) | WDC-C2 Data Book No. 3 | 1980(Jan-Jun) | WDC-C2 Data Book No 7 |
| 1978(Jul-Dec) | WDC-C2 Data Book No. 4 | 1980(Jul-Dec) | WDC-C2 Data Book No 8 |
| 1979(Jan-Jun) | WDC-C2 Data Book No. 5 | 1981(Jan-Jun) | WDC-C2 Data Book No 9 |
| 1979(Jul-Dec) | WDC-C2 Data Book No. 6 | 1981(Jul-Dec) | WDC-C2 Data Book No 10 |

Beginning with January 1966, the AE,AU,AL,AO data published in the UAG Report series have been systemtically derived from the original data taken by the number of observatories enclosed in parentheses. For example, AE(10) indicates 10 observatories. The data listed here on magnetic tape were also produced by this systematic analysis program for the period beginning in January 1966.

Provisional AE indices from a reduced 7 or 8-station network were published by WDC-A for STP in Reports UAG-60,62,63 and 64 for the first months of the IMS, January - April 1976.

2. Equatorial Dst Indices

Hourly Values 1957-1982

Publications

Hourly values of equatorial Dst for the interval January 1957 - February 1973 (several publications) by M. Sugiura and D.J. Poros, Goddard Space Flight Center, NASA.

Monthly tables beginning with the data for April 1973 are compiled by M. Sugiura and D. J. Poros and distributed by World Data Center A for Rockets and Satellites National Spaces Science Data Center.

Beginning with the data for May 1973, the Dst indices are published each month in Solar Geophysical Data.

Beginning with the data for 1970, the Dst indices are published in the IAGA Bulletins, Series No. 32.

## SECTION VII

This section contains the following: (1) the digital formats used for the catalog inventories; (2) the software used to create the catalog tables (Tables 3-9); (3) the software used to manage the main catalog data base; and (4) two programs used for managing the geomagnetic hourly value and 2.5-minute data archives (Tables 12 and 13).

The catalog update and listing software were designed to run on a variety of computers with minimal changes. The programs require a computer with a minumum of 256 kilobytes of memory, 5 megabytes of disk and a standard Fortran-77 compiler.

The catalog and mapout systems are operational at WDC-A in Boulder. The published programs are preliminary versions intended to give a user a general idea of the type of coding used, data bases used, formats, and general capabilities. The code may contain errors and should not be key punched from these listings. The most current version of this software, data bases, and user manual are available upon request from WDC-A in Boulder at the cost of copying the data on 9-track magnetic tape (800, 1600, or 6250 bpi) or IBM compatible 5 1/4 " floppy disks. The Gamma system is operational at WDC-B in Moscow and available in a similar manner. This software presentation is included to encourage all data centers to seriously consider the advantages of jointly used and jointly developed software.

The catalog system includes three data bases, (1) the geomagnetic model and 1980 annual means data base (GEOFILE1), (2) main catalog data base (GEOBASE) and (3) the annual mean data base (GEOANNUAL).

### Data Base Formats

#### 1) Geomagnetic model and 1980 annual mean format

```
1682 ********************************************
1683 *     R E C O R D    F O R M A T  (GEOFILE1) *
1684 ********************************************
1685 *     CC 1-16  OBSERVATORY NAME             *
1686 *       17     BLANK                        *
1687 *       18-20  CODE                         *
1688 *       21-26  GEOGRAPHIC LATITUDE          *
1689 *       27-32  GEOGRAPHIC LONGITUDE         *
1690 *       33-38  GEOGRAPHIIC CO-LATITUE       *
1691 *       39     BLANK                        *
1692 *       40-45  DIPOLE CO-LATITUDE           *
1693 *       46-51  DIPOLE LONGITUDE             *
1694 *       52     BLANK                        *
1695 *       53-58  GUSTAFFSSON CO-LATITUTE      *
1696 *       59-64  GUSTAFFSSON LONGITUDE        *
1697 *       65     BLANK                        *
1698 *       66-71  TSYGANENKO CO-LATITUDE       *
1699 *       72-77  TSYGANENKO LONGITUDE         *
1700 *       78     BLANK                        *
1701 *       79-84  OBSERVED YEAR (1966.5)       *
1702 *       85-90  D OBSERVED                   *
1703 *       91-96  H OBSERVED                   *
1704 *       97-102 Z OBSERVED                   *
1705 *      103-108 X OBSERVED                   *
1706 *      109-114 Y OBSERVED                   *
1707 *      115-117 OBSERVED ELEMENTS            *
1708 *      118     BLANK                        *
1709 *      119-124 CALCULATED YEAR (1980.5)     *
1710 *      125-130 D CALCULATED                 *
1711 *      131-136 H CALCULATED                 *
1712 *      137-142 Z CALCULATED                 *
1713 *      143-148 X CALCULATED                 *
1714 *      149-154 Y CALCULATED                 *
1715 *      155-160 BLANK                        *
1716 ********************************************
```

2) Main Catalog data base format

```
35 ************************************************************
36 *                                                          *
37 *        R E C O R D   F O R M A T  (GEOBASE)              *
38 ************************************************************
39 *                                                          *
40 *     KOUT CC 1  -  16  = OBSERVATORY NAME                 *
41 *             17 -  19  = OBSERVATORY CODE                 *
42 *             21 -  25  = LATITUDE (+90.00 TO -90.00)      *
43 *             26 -  30  = LONGITUDE (0.00  TO 360.00 EAST)*
44 *             31 -  34  = YEAR (1983)                      *
45 *             35        = K INDICES                        *
46 *             36-   38  = ELEMENTS (DHZ OR XYZ)            *
47 *             39        = ANNUAL MEANS (A OR SPACE)        *
48 *             40        = Q INDICES                        *
49 *             41 -  46  = NORMAL CENTERS (ABCDEI)          *
50 *             47 -  58  = NORMAL MONTHS (JFMAMJJASOND)     *
51 *             59 -  64  = RAPID RUN CENTERS                *
52 *             65 -  76  = RAPID RUN MONTHS                 *
53 *             77 -  82  = HOURLY ANY CENTERS               *
54 *             83 -  94  = HOURLY ANY MONTHS                *
55 *             95 - 100  = HOURLY DIGITAL CENTERS           *
56 *            101 - 112  = HOURLY DIGITAL MONTHS            *
57 *            113 - 118  = 2.5-MINUTE CENTERS               *
58 *            119 - 130  = 2.5-MINUTE MONTHS                *
59 *            131 - 136  = 1.0-MINUTE CENTERS               *
60 *            137 - 148  = 1.0-MINUTE MONTHS                *
61 *            149 - 154  = 10-SECOND CENTERS                *
62 *            155 - 166  = 10-SECOND MONTHS                 *
63 *            167 - 171  = NORMAL MAGNETOGRAM FILM NUMBER 1*
64 *            172 - 176  = NORMAL MAGNETOGRAM FILM NUMBER 2*
65 *            177 - 181  = RAPID RUN          FILM NUMBER  *
66 *            182 - 186  = STORM              FILM NUMBER  *
67 *            187 - 191  = K INDICES          FILM NUMBER  *
68 *            192 - 196  = HOURLY VALUE       FILM NUMBER  *
69 *            197 - 200  = NOT USED                        *
70 ************************************************************
```

3) Annual Mean Data Base Format

```
*************************************************************
*        CC 1   -  19  = OBSERVATORY NAME                   *
*           20         = not used                          *
*           21  -  23  = OBSERVATORY CODE                  *
*           24         = not used                          *
*           25  -  32  = DATE                              *
*           33  -  40  = LATITUDE                          *
*           41  -  48  = LONGITUDE (East)                  *
*           49  -  54  = ELEVATION (Meters)                *
*           55  -  62  = DECLINATION          (D)          *
*           63  -  70  = INCLINATION          (I)          *
*           71  -  76  = HORIZONTAL INTENSITY (H)          *
*           77  -  82  = NORTH COMPONENT      (X)          *
*           83  -  88  = EAST  COMPONENT      (Y)          *
*           89  -  95  = VERTICAL   INTENSITY (Z)          *
*           96  - 101  = TOTAL      INTENSITY (F)          *
*          102  -        not used                          *
*          103           RECORD TYPE FLAG                  *
*          104  - 106  = FOOT NOTE                        *
*          107  - 111  = DATA SOURCE                      *
*          112  - 116  = SOURCE CODE                      *
*          117  - 119  = ELEMENT CODE                     *
*          120  -        not used                         *
*          121  - 123  = COUNTRY CODE                     *
*          124  -        not used                         *
*          125  - 130  = RECORD NUMBER                    *
*************************************************************
```

## DATA BASE DESIGN

1) Geomagnetic model and 1980 annual mean (GEOFILE1)

The GEOFILE1 data base consists of one record for each listed observatory, approx. 500 records. Each record contains the graphic coordinates for the the observatory, its geomagnetic coordinates calculated using the Dipole, Gustaffsson, and Tsyganenko models, the latest or the 1980 observatory annual mean values, and the RIF calculated annual mean values for 1980 if no observed mean values are known. Th software only lists the data, and makes no attempt to update or manage the data base.

2) Main Catalog Data Base (GEOBASE)

The GEOBASE data base consists of one record for each observatory year for which any one or more o the WDC's hold some type of geomagnetic data. Each record contains the observatory name and code, year, K indices, Q indices, availability of annual means, normal magnetograms, rapid run magnetograms, hourly values from any source, digital hourly values, digital 2.5-minute data, and digital 1.0-minute data.

Although not listed in this publication, each record also contains the film numbers of 35MM film and 105mm fiche containing the normal magnetograms, rapid run magnetograms, storm magnetograms, K indices and hourly values.

A custom data base design was used to minimise the conversion problems associated with moving the data bases and software system to a variety of computers.

The design consists of the data base plus three sets of indexes at the beginning. The first index indicates the beginning record number for each observatory. The second index contains the observatory code for each observatory. The third index gives the beginning year for each observatory. When GEOBASE is loaded, a vacant position is inserted for all missing years between the beginning and end years of each observatory. Therefore, it is possible to calculate from the indices the record position of any observatory/year and to retrieve it with a single random access read. It is also possible to quickly list every record for a given year from all observatories or all records for a given observatory.

During the GEOBASE load, five vacant slots are inserted between each observatory. This space is used for adding new records. A limitation of the design is that only 5 new years for a given observatory at either the beginning or end of an observatory may be added. If more years are required, then the first 5 records are added, the data base is dumped to a sequential file and then reloaded, permitting 5 additional records to be added. The sequential file is 1.45 million characters and the GEOBASE file is 2.2 million characters.

3) Annual mean data base (GEOANNUAL)

The GEOANNUAL data base consists of one record for each observatory year for which an annual mean value exists. The data base presented here is a standard sequential file. The indexed version and the associated update and management software is available but not presented here.

Table 10 is the software necessary to dump, load and update the GEOBASE data base. Table 11 is th software necessary to create the listings from all three data bases as presented in Tables 3-9.

Table 10

# GEOMAGNETIC CATALOG UPDATE PROGRAM

```
1  ************************************************************
2  *    PROGRAM:    GEOUPDATE                                 *
3  *    WRITTEN BY: CARL ABSTON                               *
4  *    DATE:       APRIL 1985                                *
5  *    LANGUAGE:   FORTRAN-77                                *
6  *    COMPUTER:   CHARLES RIVER MC6800 MICRO SYSTEM         *
7  *                                                          *
8  *    ADDRESS:    WORLD DATA CENTER-A                       *
9  *                325 BROADWAY                              *
10 *                BOULDER, COLORADO                         *
11 *                80303-USA                                 *
12 *    PHONE:      303-497-6276                              *
13 ************************************************************
14
15 ************************************************************
16 *     THE PURPOSE OF THIS PROGRAM IS THE FOLLOWING         *
17 *                                                          *
18 *     1)  TO UPDATE THE INTERNATIONAL GEOMAGNETIC          *
19 *         INVENTORY                                        *
20 *     2)  TO ALLOW THE USER TO RUN THIS SYSTEM ON ANY      *
21 *         COMPUTER WITH VERY FEW CHANGES                   *
22 *     3)  TO BE REASONABLY FAST AND USER FRIENDLY          *
23 *     4)  TO BE UNDERSTANDABLE AND EASY TO CHANGE          *
24 ************************************************************
25
26 ************************************************************
27 *     TO ACCOMPLISH THESE GOALS                            *
28 *     THE FOLLOWING COMPROMISES WERE MADE:                 *
29 *                                                          *
30 *     1)  FORTRAN-77 WAS USED                              *
31 *     2)  A CUSTOM DATA BASE STRUCTURE WAS USED            *
32 *     3)  ONLY THE SIMPLEST PROGRAMMING STYLE WAS USED     *
33 ************************************************************
34
35 ************************************************************
36 *                                                          *
37 *          D A T A   R E C O R D   F O R M A T              *
38 *          ----------------------------------              *
39 *                                                          *
40 *     KOUT CC 1  -  16  = OBSERVATORY NAME                 *
41 *             17 -  19  = OBSERVATORY CODE                 *
42 *             21 -  25  = LATITUDE (+90.00 TO -90.00)      *
43 *             26 -  30  = LONGITUDE (0.00  TO 360.00 EAST)*
44 *             31 -  34  = YEAR (1983)                      *
45 *             35        = K INDICES                        *
46 *             36-   38  = ELEMENTS (DHZ OR XYZ)            *
47 *             39        = ANNUAL MEANS (A OR SPACE)        *
48 *             40        = Q INDICES                        *
49 *             41 -  46  = NORMAL CENTERS (ABCDEI)          *
50 *             47 -  58  = NORMAL MONTHS (JFMAMJJASOND)     *
51 *             59 -  64  = RAPID RUN CENTERS                *
52 *             65 -  76  = RAPID RUN MONTHS                 *
53 *             77 -  82  = HOURLY ANY CENTERS               *
54 *             83 -  94  = HOURLY ANY MONTHS                *
55 *             95 - 100  = HOURLY DIGITAL CENTERS           *
56 *            101 - 112  = HOURLY DIGITAL MONTHS            *
57 *            113 - 118  = 2.5-MINUTE CENTERS               *
58 *            119 - 130  = 2.5-MINUTE MONTHS                *
59 *            131 - 136  = 1.0-MINUTE CENTERS               *
60 *            137 - 148  = 1.0-MINUTE MONTHS                *
61 *            149 - 154  = 10-SECOND CENTERS                *
62 *            155 - 166  = 10-SECOND MONTHS                 *
63 *            167 - 171  = NORMAL MAGNETOGRAM FILM NUMBER 1*
64 *            172 - 176  = NORMAL MAGNETOGRAM FILM NUMBER 2*
65 *            177 - 181  = RAPID RUN          FILM NUMBER  *
66 *            182 - 186  = STORM              FILM NUMBER  *
67 *            187 - 191  = K INDICES          FILM NUMBER  *
68 *            192 - 196  = HOURLY VALUE       FILM NUMBER  *
69 *            197 - 200  = NOT USED                        *
70 ************************************************************
71
72 ************************************************************
73 *           D A T A   B A S E   D E S I G N                *
74 *           -------------------------------                *
75 *                                                          *
76 *     THE FIRST 34 RECORD POSITIONS ARE RESERVED FOR       *
77 *     INDEXES                                              *
78 *     ALL DATA RECORDS MUST BE IN SEQUENCE BY OBSERVATORY *
79 *                      NAME AND YEAR                       *
80 *     EACH OBSERVATORY IS SEPARATED BY 5 BLANK RECORDS     *
81 *                                                          *
82 *     THERE ARE 3 SETS OF INDEX RECORDS                    *
83 *     1)  INDEX RECORDS 1-10 = OBSERVATORY POINTERS        *
84 *     2)  INDEX RECORDS 11-20= OBSERVATORY CODES           *
85 *     3)  INDEX RECORDS 21-30= OBSERVATORY BEGIN YEARS     *
86 *         ---------------------------------------------    *
87 *         RECORD POSITIONS 31-33 ARE NOT USED              *
88 *         RECORD POSITION  34 = NUMBER OF RECORDS IN FILE  *
89 *                                                          *
90 *     WITH THIS DESIGN                                     *
91 *     ----------------                                     *
92 *     IT IS POSSIBLE TO ADD UP TO FIVE NEW                 *
93 *     YEARS FOR EACH OBSERVATORY WITHOUT PROBLEMS          *
94 *     IT IS POSSIBLE TO ADD MISSING YEARS WITHOUT PROBLEMS*
95 *     IT IS POSSIBLE TO LOCATE ANY OBS-YEAR WITH ONE READ  *
96 *                                                          *
97 *     IT IS NOT POSSIBLE TO ADD MORE THAN 5 YEARS (RECORDS*
98 *     TO THE END OF ANY OBSERVATORY WITHOUT DUMPING AND    *
99 *     RELOADING THE DATA BASE                              *
100*                                                          *
```

```
C     NEW OBSERVATORIES                                              *
C     ----------------                                               *
C     NEW OBSERVATORIES CAN BE ADDED, HOWEVER THEY WILL BE*
C     ADDED AT THE END OF THE DATA BASE                              *
C     WHEN YOU PRINTOUT THE DATA ALL NEWLY ENTERED OBS               *
C     WIL BE OUT OF SEQUENCE                                         *
C     TO SOLVE THIS PROBLEM, IT IS NECESSARY TO:                     *
C     1) DUMP THE DATA BASE (GEOBASE) USING THE DUMP                 *
C        ROUTINE USING A FILE CALLED SEQ                             *
C     2) SORT THE SEQ DATA BASE USING THE SYSTEM SORT                *
C     3) LOAD THE SEQ DATA BASE USING THE LOAD ROUTINE               *
C*****************************************************************
C     1)  KCODE=AN ARRAY CONTAINING UP TO 500 (3 DIGIT)              *
C         CODES                                                      *
C     2)  KNUM= AN ARRAY CONTAINING UP TO 500 POINTS                 *
C               EACH POINTER CORRESPONDS TO THE BEGINNING            *
C               LOCATION OF EACH OBSERVATORY CODE                    *
C     3)  K19YR=AN ARRAY CONTAINING THE BEGINNING YEAR               *
C               OF EACH DIFFERENT OBSERVATORY                        *
C*****************************************************************

      INTEGER*4 KNUM,K19YR
      DIMENSION KNUM(500),KOUT1(50),K19YR(500)
      CHARACTER*3   ICODE
      CHARACTER*3   JCODE
      CHARACTER*6   KCENT
      CHARACTER*3   KCODE (500)
      CHARACTER*4   KEYR
      CHARACTER*16  KNAME
      CHARACTER*5   KLAT
      CHARACTER*5   KLONG
      CHARACTER*12  KMON
      CHARACTER*2   KMODE
      CHARACTER*2   KMODEX
      CHARACTER*2   KOP
      CHARACTER*200 KOUT
      CHARACTER*200 KOUT2
      CHARACTER*200 KSPACE
      CHARACTER*4   KYR
      CHARACTER*71  KZ
      CHARACTER*50  PASS

      KPAD = 0
      KREIN = 0

      DO 99 I=1,200
      KSPACE (I:I)=' '
99    CONTINUE
      KSCAN = 0

      PRINT *,
     -'                                                              '
1000  PRINT *,
     -'| WELCOME TO THE GEOMAGNETIC CATALOG UPDATE SYSTEM           |'
      PRINT *,
     -'|             VERSION 2.1   APRIL 1, 1985                    |'
      PRINT *,
     -'|_____________________________________________________________|'
      PRINT *, 'ENTER PASSWORD'
      READ (*,10)PASS
10    FORMAT (A)
      IF (PASS (1:6) .EQ. 'GEOMAG') GO TO 1001
      PRINT *, 'INVALID PASSWORD'
      GO TO 9999
1001  PRINT *, '                                                    '
      PRINT *, '|  ENTER U = UPDATE DATA BASE                      |'
      PRINT *, '|  ENTER I = LIST INDEX                            |'
      PRINT *, '|  -------------------------                       |'
      PRINT *, '|  ENTER L = LOAD DATA BASE                        |'
      PRINT *, '|  ENTER D = DUMP DATA BASE                        |'
      PRINT *, '|__________________________________________________|'
      READ (*,10)KMODE
      IF (KMODE (1:1) .EQ. 'U') GO TO 2000
      IF (KMODE (1:1) .EQ. 'L') GO TO 1010
      IF (KMODE (1:1) .EQ. 'D') GO TO 1050
      IF (KMODE (1:1) .EQ. 'I') GO TO 2000
      GO TO 1001
C*****************************************************************
C
C                  L O A D   D A T A   B A S E
C                  ___________________________
C
C*****************************************************************
C     CREATE A RANDOM ACCESS DATA BASE FROM A SEQUENTIAL FILE
C     1)  THE SEQUENTIAL FILE RECORDS ARE 200 CHARACTERS EACH
C
C     2)  THERE ARE NO END OF RECORD TERMINATORS IN THE SEQUE
C     3)  UNIT 21 IS THE INPUT FILE  (SEQUENTIAL FILE)
C     4)  UNIT 20 IS THE OUTPUT FILE (RANDOM ACCESS FILE WITH
C*****************************************************************
1010  PRINT *,'ENTER SYSTEM PASSWORD'
      READ (*,10)PASS
      IF (PASS (1:7) .EQ. 'GEOLOAD') GO TO 1011
      GO TO 9999
1011  PRINT *, '***** THE BASE BASE ---GEOBASE---WILL BE DEL
      PRINT *, 'ARE YOU SURE YOU WANT TO CONTINUE ENTER Y/N'
      READ (*,10)PASS
      IF (PASS(1:1) .NE. 'Y')GO TO 9999

      PRINT *, 'OPEN INPUT (SEQ) AND OUTPUT (GEOBASE) FILES'
```

```
      OPEN (21,FILE='SEQ',ACCESS='DIRECT',
     -RECL=200,FORM='UNFORMATTED')
      OPEN (20,FILE='GEOBASE',ACCESS='DIRECT',
     -RECL=200,FORM='UNFORMATTED',STATUS='NEW')
      PRINT *, 'FILES ARE OPENED'
*************************************************************
*     1)  READ THE SEQUINTIAL FILE AND WRITE DIRECT ACCESS  *
*         RECORDS BEGINNING AT RECORD POSITION 35           *
*     2)  CREATE AN INDEX ARRAY CONTAINING ALL OBSERVATORY  *
*         CODES IN THE DATA BASE                            *
*     3)  CREATE AN ARRAY OF POINTERS TO THE FIRST RECORD   *
*         FOR EACH CODE                                     *
*     4)  CREATE AN ARRAY CONTAINING THE BEGINNING YEAR     *
*         OF EACH OBSERVATORY                               *
*     5)  THE DATA FROM EACH DIFFERENT OBSERVATORY          *
*         IS SEPARATED WITH 5 BLANK RECORDS                 *
*     6)  MISSING YEARS ARE PADDED WITH BLANK RECORDS       *
*     7)  THE BLANK RECORDS WILL BE USED TO HOLD NEW DATA   *
*************************************************************
      I1=1
      I3=1
      INUM=35
      J=1
*********************************************************
*     READ FIRST RECORD                                 *
*********************************************************
      READ (21,REC=J,ERR=1020)KOUT
      KCODE (I1)=KOUT(17:19)
      KNUM (I1) = INUM
*********************************************************
*     CONVERT CC 31-34 IN KOUT (YEAR) INTO BINARY       *
*     IN FIRST RECORD ONLY                              *
*********************************************************
      READ (KOUT,FMT='(30X,I4)')L
      PRINT *,KCODE(I1), ' ', L
      K19YR(I1) = L
      LYR = L
      GO TO 1016

*********************************************************
*     READ REST OF RECORDS                              *
*********************************************************
1012  READ (21,REC=J,ERR=1020)KOUT
1013  IF (KOUT(17:19) .EQ. KCODE (I1)) GO TO 1015
      I1=I1+1
      KCODE (I1) = KOUT (17:19)
*********************************************************
*     CONVERT CC 31-34 IN KOUT (YEAR) INTO BINARY       *
*********************************************************
      READ (KOUT,FMT='(30X,I4)')L
      LYR=L
      K19YR (I1) = L
      PRINT *,KCODE (I1), I1,LYR
*********************************************************
*     WRITE 5 BLANK RECORDS BETWEEN DIFFERENT           *
*     OBSERVATORIES                                     *
*********************************************************
      KSPACE (31:34) = '    '
      DO 1014 I =1,5
      WRITE (20,REC=INUM)KSPACE
      INUM=INUM+1
1014  CONTINUE
      KNUM  (I1) = INUM
      K19YR (I1) = L
      GO TO 1016
*********************************************************
*     CONVERT CC 31-34 IN KOUT (YEAR) INTO BINARY       *
*********************************************************
1015  READ (KOUT,FMT='(30X,I4)')L
      PRINT *,KCODE(I1), ' ', L
10155 LYR=LYR +1
      IF (L .EQ. LYR) GO TO 1016
      WRITE (KSPACE(31:34),FMT='(I4)')LYR
      WRITE (20,REC=INUM)KSPACE
      INUM = INUM + 1
      GO TO 10155
1016  WRITE (20,REC=INUM)KOUT
      INUM = INUM +1
      J=J+1
      GO TO 1012
*********************************************************
*     END OF CREATING THE DATA BASE                     *
*     1) NOW WRITE THE CODES AND POINTERS               *
*     2) RECORD POSITIONS 1-35 ARE AVAILABLE FOR THIS   *
*        PURPOSE                                        *
*     3) POINTERS ARE 32 BIT BINARY                     *
*     4) CODES ARE 3-DIGITS EACH (LIKE; GWR)            *
*     5) RECORD 24 CONTAINS THE POSITION OF THE LAST    *
*        RECORD                                         *
*********************************************************

*********************************************************
*     WRITE 5 BLANK RECORDS AT END OF DATA BASE         *
*     ADD 999 AS THE LAT POSITION OF THE KCODE ARRAY    *
*********************************************************
1020  KSPACE (31:34) = '    '
      DO 10202 I =1,5
      WRITE (20,REC=INUM)KSPACE
      INUM=INUM+1
      I1=I1+1
```

```
      KCODE(I1) ='999'
10202 CONTINUE
      PRINT *, 'ALL DATA HAVE BEEN WRITTEN TO FILE GEOBASE'
      PRINT *, 'NUMBER OF RECORDS = ',INUM
      KOUT1(1) = INUM
      WRITE (20,REC=34)KOUT1

10203 J=1
      INUM=1
10201 DO 1021 I=1,50
      KOUT1(I) = KNUM (J)
      J=J+1
1021  CONTINUE
      WRITE (20,REC=INUM)KOUT1
      INUM=INUM +1
      IF (INUM .GT. 10) GO TO 1022
      GO TO 10201
************************************************
*      WRITE OUT CODE RECORDS                  *
*                                              *
************************************************

1022  INUM =11
      I1=1
      I2=3
      I3=1
1023  DO 1024 I=1,50
      KOUT (I1:I2) = KCODE (I3)
      I1=I1+3
      I2=I2+3
      I3=I3+1
1024  CONTINUE
      WRITE (20,REC=INUM)KOUT
      PRINT *,KOUT
      INUM = INUM +1
      IF (INUM .GT. 20) GO TO 1025
      I1=1
      I2=3
      GO TO 1023
******************************************************
*     LOAD BEGIN YEARS                               *
******************************************************
1025  INUM=21
      J=1
1026  DO 1027 I=1,50
      KOUT1(I) = K19YR (J)
      J=J+1
1027  CONTINUE
      WRITE (20,REC=INUM)KOUT1
      INUM = INUM + 1
      IF (INUM .GT. 30) GO TO 1030
      GO TO 1026
******************************************************
*     END OF LOADING INDEXES                         *
******************************************************

1030  PRINT *,
     -'DATA BASE AND INDEX POINTERS HAVE BEEN LOADED'
      GO TO 99999
******************************************************
*                                                    *
*     U P D A T E   R O U T I N E                    *
*     ___________________________                    *
*                                                    *
*     1) OPEN THE RANDOM ACCESS FILE                 *
*     2) LOAD INTO MEMORY THE CODE, POINTER INDEX,   *
*        AND BEGINNING YEAR                          *
******************************************************

2000  PRINT *,'WELCOME TO UPDATE ROUTINE'
      OPEN (20,FILE='GEOBASE',ACCESS='DIRECT',RECL=200,
     -FORM='UNFORMATTED')
      PRINT *, 'FILE GEOBASE OPENED'
      PRINT *, ' '
      PASS(1:6) = '      '
      KCENT(1:6) = '      '
20000 PRINT *, 'ENTER YOUR CENTER CODE OR END'
      PRINT *,
     -'A=BOULDER  B=MOSCOW  C=KYOTO  D=DENMARK  E=EDINBURGH
      READ (*,10)PASS
      IF (PASS(1:3) .EQ. 'END')GO TO 20011
      IF (PASS(1:1) .EQ. 'A') KCENT(1:1) = 'A'
      IF (PASS(1:1) .EQ. 'B') KCENT(2:2) = 'B'
      IF (PASS(1:1) .EQ. 'C') KCENT(3:3) = 'C'
      IF (PASS(1:1) .EQ. 'D') KCENT(4:4) = 'D'
      IF (PASS(1:1) .EQ. 'E') KCENT(5:5) = 'E'
      IF (PASS(1:1) .EQ. 'I') KCENT(6:6) = 'I'
      GO TO 20000
******************************************************
*     LOAD POINTER INDICES (FIRST 10 RECORDS)        *
******************************************************
20011 INUM=1
      J=1
2001  READ (20,REC=INUM)KOUT1
      PRINT *, 'RECORD NUMBER = ',INUM, 'POINTER NUMBER = ',
      DO 2002 I=1,50
      KNUM(J) = KOUT1 (I)
      J=J+1
2002  CONTINUE
      INUM = INUM + 1
```

```
      IF (INUM .GT. 10) GO TO 2003
      GO TO 2001
*********************************************************
*     LOAD  CODE INDICES INTO ARRAY                     *
*********************************************************
2003  PRINT *, 'POINTER INDEX LOADED'
      INUM=11
      I1=1
      I2=3
      I3=1
2004  READ (20,REC=INUM)KOUT
      DO 2005 I=1,50
      KCODE(I3) = KOUT (I1:I2)
      I1=I1+3
      I2=I2+3
      I3=I3+1
2005  CONTINUE
      INUM = INUM + 1
      IF (INUM .GT. 20) GO TO 2006
      I1=1
      I2=3
      GO TO 2004
*******************************************
*     LOAD BEGIN YEARS                    *
*******************************************
2006  INUM =21
      J=1

2007  READ (20,REC=INUM)KOUT1
      DO 2008 I=1,50
      K19YR (J) = KOUT1 (I)
      J=J+1
2008  CONTINUE
      INUM =INUM + 1
      IF (INUM .GT. 30) GO TO 2009
      GO TO 2007
2009  PRINT *, 'ALL INDICES ARE LOADED'
      IF (KMODE .EQ. 'I') GO TO 8000
      PRINT *, ' '

*****************************************************
*                                                   *
*     BEGIN UPDATING DATA BASE                      *
*           --------                                *
*****************************************************
2010  PRINT *,
     -'_____________________________________________________
      PRINT *,
     -'|                          ENTER
      PRINT *,
     -'|_____________________________________________________
      PRINT *,
     -'|  A = ADD     ONE RECORD        | D = DELETE ONE RECO
      PRINT *,
     -'|  C = CORRECT ONE RECORD        | L = LIST   ONE RECO
      PRINT *,
     -'|                                |
      PRINT *,
     -'|  CG= CORRECT GROUP OF RECORDS  | S = SCAN AN OBSERVA
      PRINT *,
     -'|  AG= ADD CENTERS TO GROUP      | AN= ALTERNATE NAME
      PRINT *,
     -'|                          E = END OF ROUTINE
      PRINT *,
     -'|_____________________________________________________
      PRINT *,' '
20101 READ (*,10)KMODE
      IF (KMODE .EQ. 'E') GO TO 9999
      IF (KMODE (1:2) .EQ. 'AN') GO TO 7050

2011  PRINT *, 'ENTER INTERNATIONAL CODE (3-DIGITS) OR END'
      READ (*,10)ICODE
      IF (ICODE (1:3) .EQ. 'END') GO TO 2010

      IF (KMODE .EQ. 'S')GO TO 2013
2012  PRINT *, 'ENTER YEAR (LIKE 1982)'
      READ (*,10)KYR
      IF (KYR (1:1) .NE. '1') GO TO 2012
      READ (KYR,FMT='(I4)')L
      PRINT *,L

20121 IF (KMODE(1:2) .EQ. 'CG')GO TO 20122
      IF (KMODE(1:2) .EQ. 'AG')GO TO 20122
      GO TO 2013
20122 PRINT *,'ENTER END YEAR (LIKE 1984)'
      READ (*,10)KEYR
      IF (KEYR (1:1) .NE. '1') GO TO 20121
      READ (KEYR,FMT='(I4)')LE
      PRINT *,'END YEAR = ',LE
*************************************************************
*     1) FIND OUT FROM THE INDEX--LOCATION OF ICODE DATA    *
*************************************************************
2013  J=1
      DO 2014 I=1,500
      IF (ICODE(1:3) .EQ. KCODE (I)) GO TO 2015
      J=J+1
2014  CONTINUE
      IF (KMODE(1:2) .EQ. 'A ') GO TO 2017
      PRINT*, 'NO SUCH OBSERVATORY CODE-TRY AGAIN'
      PRINT*, 'POSSIBLE CODES ARE AS FOLLOWS:'
```

```
      PRINT *,'                                                '
*************************************************************
*                                                           *
*     1) IF NO SUCH CODE EXIST THEN PRINTOUT ALL CODES      *
*        WITH THEIR NAMES USING THE FIRST LETTER            *
*        IN OTHER WORDS, IF CODE GGG WAS REQUESTED          *
*        PRINTOUT ALL CODES BEGINNING WITH G                *
*************************************************************

      DO 20141 I=1,500
      JCODE(1:3) = KCODE(I)
      IF (JCODE(1:1) .NE. ICODE(1:1)) GO TO 20141
      INUM = KNUM (I)
      READ (20,REC=INUM)KOUT
      PRINT *, JCODE(1:3),' = ',KOUT(1:16)
20141 CONTINUE
20142 PRINT *, '                                               '
      GO TO 2010
*************************************************************
*     FOUND THE OBSERVATORY CODE                            *
*     NOW CALCULATE LOCATION FOR OBS-YEAR POSITION          *
*     KNUM (J)  = BEGINNING LOCATION OF OBSERVATORY         *
*     K19YR (J) = BEGINNING YEAR OF REQUESTED OBSERVATORY   *
*     INUM = RECORD POSITION TO BE READ                     *
*     IC   = POSITION OF THE NEXT OBSERVATORY               *
*************************************************************

2015  INUM = KNUM (J)

      IHOLD=INUM

      IC =KNUM (J+1)
      IF (IC .LT. INUM ) IC = INUM + 1
      IA = INUM
      PRINT *, 'LOCATION OF FIRST OBS RECORD = ',INUM
      IF (KMODE (1:1) .EQ. 'S') GO TO 2080
      INUM = INUM+ (L - K19YR (J))
      KBEGIN=INUM

      PRINT *, 'LOCATION OF REQUESTED OBS-YEAR =',INUM
      IF (INUM .LE. IC) GO TO 2020
      PRINT *,'NO POSITION AVAILABLE FOR THIS RECORD'
      PRINT *,'AFTER COMPLETION OF THIS OPERATION'
      PRINT *,'PLEASE DUMP AND RELOAD THE DATA BASE'
      INUM = IC - 1
      GO TO 2020
*************************************************************
*                                                           *
*           A D D   N E W   O B S E R V A T O R Y           *
*           _____________________________________           *
*                                                           *
*     THIS ICODE DOES NOT EXISTS THEREFORE:                 *
*     1) FIND A BLANK RECORD POSITION ALPHEBETICLY          *
*        BY OBSERVATORY TO ADD THIS RECORD                  *
*     2) ADD RECORD                                         *
*     3) EXIT PROGRAM                                       *
*     4) DUMP DATA BASE                                     *
*     5) RELOAD DATA BASE                                   *
*************************************************************
2017  J=1
      JB=0
      PRINT *,'_____________________________________________'
      PRINT *,'THIS OBSERVATORY DOES NOT NOW EXIST IN THE DA
      PRINT *,'1--ADD ONE RECORD ONLY'
      PRINT *,'2--DUMP DATA BASE'
      PRINT *,'3--RELOAD DATA BASE'
      PRINT *,'_____________________________________________'
      PRINT *,'ENTER NAME OF OBSERVATORY'
      READ (*,10)KNAME

      DO 2018 I=1,500
      INUM = KNUM (J)
      J=J+1
      READ (20,REC=INUM)KOUT
      IF (KNAME(1:16) .GT. KOUT(1:16))GO TO 2018
      GO TO 2019
2018  CONTINUE
*************************************************************
*     YOU HAVE FOUND THE FIRST RECORD SMALLER               *
*     THAN THE NEW OBSERVATORY NAME                         *
*     STEP BACK ONE POSITION AND HOPE FOR A BLANK SLOT      *
*     IF BLANK SLOT IS AVAILABLE--GO TO ADD ROUTINE         *
*     IF NO BLANK SLOT IS AVAILABLE STEP BACK ONE MORE      *
*     AFTER 5 UNSUCCESSFUL TRIES-NO BLANKS EXISTS           *
*     THEREFORE--YOU MUST EXIT PROGRAM,DUMP, AND RELOAD     *
*************************************************************
2019  INUM = INUM -1
      READ (20,REC=INUM)KOUT
      IF (KOUT(1:16) .EQ. '                ')GO TO 20192
      JB = JB + 1
      IF(JB .GT. 5)GO TO 20191
      GO TO 2019
20191 PRINT *,'**THE CORRECT LOCATION FOR THIS NEW RECORD IS
      PRINT *,'THEREFORE: YOU MUST DUMP AND RELOAD DATA BASE
      PRINT *,'           BEFORE YOU CAN ADD THIS RECORD
      GO TO 99999
20192 PRINT *,'NEW RECORD WILL BE SERTED BY POSITION ', INUM
      PRINT *, 'ENTER NEW LATITUDE'
      READ (*,10)KLAT
      PRINT *, 'ENTER NEW LONGITUTE'
```

```
      READ (*,10)KLONG
      JB=999
      GO TO 2050
*****************************************************************
*     1) YOU HAVE FOUND THE FIRST RECORD FOR A GIVEN            *
*        OBSERVATORY                                            *
*     2) FIND THE LAST YEAR FOR DATA                            *
*     3) IF IA (BEGINNING LOCATION OF OBSERVATORY)              *
*        AND GREATER THAN IB THEN YOU ARE FOR DATA              *
*        BEFORE THE BEGINNING                                   *
*****************************************************************
2020  IB = INUM - 1
      IF (IB .LT.  IA) IB = IA
      READ (20,REC=IB,ERR=2025)KOUT
      IF (KOUT(3:34) .NE. '     ')GO TO 2021
      INUM = INUM - 1
      GO TO 2020
*****************************************************************
*     STORE OBS NAME LATITUTE AND LONGITUDE OF LATEST YEAR*
*****************************************************************
2021  KNAME = KOUT(1:16)
      KLAT = KOUT(21:25)
      KLONG= KOUT(26:30)
      PRINT *,'IA = ',IA
      PRINT *,'IB = ',IB
      PRINT *,'IC = ',IC
      INUM=KBEGIN
      PRINT *,'INUM=',INUM
*****************************************************************
*     READ THE SELECTED RECORD                                  *
*****************************************************************
      READ (20,REC=INUM,ERR=2025)KOUT

2022  IF (KMODE (1:2) .EQ. 'A ') GO TO 2050
      GO TO 2028
2025  PRINT *, 'YOU ARE BEYOND THE LIMITS OF THE DATA BASE'
      GO TO 2010
*****************************************************************
*     NO RECORD IS PRESENT FOR THIS OBSERVATORY-YEAR            *
*****************************************************************

2027  IF (KMODE (1:2) .EQ. 'A ') GO TO 2050
      IF (KMODE (1:1) .EQ. 'S') GO TO 2010
      PRINT *, 'NO SUCH RECORD EXISTS-TRY AGAIN'
      GO TO 2010
2028  IF (KMODE(1:1) .EQ. 'C') GO TO 3000
      IF (KMODE(1:1) .EQ. 'D') GO TO 4000

      IF (KMODE(1:1) .EQ. 'L') GO TO 4000
      IF (KMODE(1:2) .EQ. 'AG')GO TO 7000
      IF (KMODE(1:1) .EQ. 'E') GO TO 9999
      PRINT *, 'THIS RECORD ALREADY EXISTS-TRY AGAIN'
      GO TO 2010
*****************************************************************
*                                                               *
*                  ADD ROUTINE                                  *
*                  -----------                                  *
*                                                               *
*    1)  NO RECORD FOR THIS OBSERVATORY-YEAR IS PRESENT         *
*    2)  WE ARE LOCATED AT THE FIRST BLANK RECORD               *
*****************************************************************

2050  PRINT *, 'WELCOME TO THE ADD ROUTINE'
      IF (KOUT(1:5) .NE. '     ')GO TO 2066
      KOUT = KSPACE
2051  PRINT *, 'IS THERE A K-INDICES ENTER Y/N'
      READ (*,10)PASS
      IF (PASS(1:1) .EQ. 'Y') KOUT (35:35) = 'K'
2052  PRINT *, 'ENTER ELEMENTS (DHZ OR XYZ)'
      READ (*,10)PASS
      KOUT (36:38) = PASS (1:3)
2054  PRINT *, 'ENTER TYPE OF DATA OR END'
      PRINT *,'ENTER E = END OF DATA'
      PRINT *,'ENTER 1 = NORMAL MAGNETOGRAMS'
      PRINT *,'ENTER 2 = RAPID RUN MAGNETOGRAMS'
      PRINT *,'ENTER 3 = ANY HOURLY VALUES'
      PRINT *,'ENTER 4 = DIGITAL HOURLY VALUES'
      PRINT *,'ENTER 5 = 2.5-MINUTE VALUES'
      PRINT *,'ENTER 6 = 1.0-MINUTE VALUES'
      PRINT *,'ENTER 7 = 10-SECOND VALUES'
      READ (*,10)KMODE
      IF (KMODE (1:1) .EQ. 'E') GO TO 2060
2055  PRINT *, 'ENTER MONTHS (01,02,03, OR ALL) OR SAME=SAME
      READ (*,10)PASS
      PRINT *,PASS
      IF (PASS (1:3) .EQ. 'ALL') GO TO 2059
2056  I1=1
      I2=2
      KMON(1:12) = '
      DO 2057 I=1,12
      IF (PASS(I1:I2) .EQ. '01')KMON (1:1)='J'
      IF (PASS(I1:I2) .EQ. '02')KMON (2:2)='F'
      IF (PASS(I1:I2) .EQ. '03')KMON (3:3)='M'
      IF (PASS(I1:I2) .EQ. '04')KMON (4:4)='A'
      IF (PASS(I1:I2) .EQ. '05')KMON (5:5)='M'
      IF (PASS(I1:I2) .EQ. '06')KMON (6:6)='J'
      IF (PASS(I1:I2) .EQ. '07')KMON (7:7)='J'
      IF (PASS(I1:I2) .EQ. '08')KMON (8:8)='A'
      IF (PASS(I1:I2) .EQ. '09')KMON (9:9)='S'
      IF (PASS(I1:I2) .EQ. '10')KMON (10:10)='O'
```

```
      IF (PASS(I1:I2) .EQ. '11')KMON (11:11)='N'
      IF (PASS(I1:I2) .EQ. '12')KMON (12:12)='D'
      I1=I1+3
      I2=I2+3
 2057 CONTINUE

 2058 IF (KMODE (1:1) .EQ. '1') KOUT (47:58)   = KMON(1:12)
      IF (KMODE (1:1) .EQ. '2') KOUT (65:76)   = KMON(1:12)
      IF (KMODE (1:1) .EQ. '3') KOUT (83:94)   = KMON(1:12)
      IF (KMODE (1:1) .EQ. '4') KOUT (101:112) = KMON(1:12)
      IF (KMODE (1:1) .EQ. '5') KOUT (119:130) = KMON(1:12)
      IF (KMODE (1:1) .EQ. '6') KOUT (137:148) = KMON(1:12)
      IF (KMODE (1:1) .EQ. '7') KOUT (155:166) = KMON(1:12)

      IF (KMODE (1:1) .EQ. '1') KOUT (41:46)   = KCENT(1:6)
      IF (KMODE (1:1) .EQ. '2') KOUT (59:64)   = KCENT(1:6)
      IF (KMODE (1:1) .EQ. '3') KOUT (77:82)   = KCENT(1:6)
      IF (KMODE (1:1) .EQ. '4') KOUT (95:100)  = KCENT(1:6)
      IF (KMODE (1:1) .EQ. '5') KOUT (113:118) = KCENT(1:6)
      IF (KMODE (1:1) .EQ. '6') KOUT (131:136) = KCENT(1:6)
      IF (KMODE (1:1) .EQ. '7') KOUT (149:154) = KCENT(1:6)
      GO TO 2054
 2059 KMON (1:12) = 'JFMAMJJASOND'
      GO TO 2058

 2060 PRINT *, 'DO YOU HAVE FILM NUMBERS ENTER Y/N'
      READ (*,10)PASS
      IF (PASS(1:1) .NE. 'Y') GO TO 2061
      PRINT *, 'ENTER NORMAL (1) FILM NUMBER'
      READ (*,10) PASS
      KOUT(167:171) = PASS(1:5)
      PRINT *, 'ENTER NORMAL (2) FILM NUMBER'
      READ (*,10)PASS
      KOUT (172:176) = PASS(1:5)
      PRINT *, 'ENTER RAPID RUN FILM NUMBER'
      READ (*,10) PASS
      KOUT (177:181) = PASS(1:5)
      PRINT *, 'ENTER STORM FILM NUMBER'
      READ (*,10) PASS
      KOUT (182:186) = PASS(1:5)
      PRINT *, 'ENTER K FILM NUMBER'
      READ (*,10)PASS
      KOUT(187:191) = PASS (1:5)
      PRINT *, 'ENTER HV FILM NUMBER'
      READ (*,10)PASS
      KOUT(192:196) = PASS(1:5)
 2061 KOUT(1:16) = KNAME (1:16)
      KOUT (17:19) = ICODE (1:3)
      KOUT (31:34) = KYR (1:4)
      KOUT(21:25) = KLAT (1:5)
      KOUT(26:30) = KLONG (1:5)
      IF (KOUT(1:5) .NE. '     ') GO TO 2062
      PRINT *,'ENTER OBSERVATORY NAME'
      READ (*,10)KOUT(1:16)
      PRINT *,'ENTER LATITUDE (LIKE -1825 FOR -18.25)'
      READ (*,10)KOUT(21:25)
      PRINT *, 'ENTER LONGITUDE (LIKE 34000 FOR 340.00)'
      READ (*,10)KOUT(26:30)
 2062 CALL GEOLST (KOUT)
 2063 PRINT *, 'IS THIS RECORD CORRECT ENTER Y/N'
      READ (*,10)PASS
      IF (PASS(1:1) .EQ. 'Y') GO TO 2064
      GO TO 30001
 2064 WRITE (20,REC=INUM)KOUT
      IF (JB .EQ. 999) GO TO 99999
      IF (KPAD .EQ. 0) GO TO 2010
      KPAD = 0
*****************************************************************
*     THE NEW OBSERVTORY HAS BEEN WRITTEN
*     1)  WRITE 5 BLANK RECORDS
*     2)  WRITE A NEW NEW POSITION IN RECORD 34
*****************************************************************
      KSPACE (31:34) = '    '
      INUM=INUM +1
      DO 2065 I =1,5
      WRITE (20,REC=INUM)KSPACE
      INUM=INUM+1
 2065 CONTINUE
      KOUT1(1) = INUM
      PRINT *, 'NEW LAST POSITION = ',KOUT1(1)
      WRITE (20,REC=34) KOUT1
      GO TO 2010
 2066 PRINT *, '**** OBSERVATORY YEAR ALREADY EXISTS---USE C
      GO TO 2010
*****************************************************************
*
*                       SCAN OBSERVATORY
*                       ----------------
*           AND PRINTOUT ALL YEARS FOR GIVEN OBSERVATORY
*
*     KSCAN IS 0 AT BEGINNING OF PROGRAM
*     THE FIRST TIME A SCAN IS USED KSCAN IS SET TO 1
*     AND THE UNIT=19 IS OPENED
*     ALL RESULTS FROM THE SCAN ROUTINE IS PRINTED
*     AT THE USER TERMINAL AND WRITTEN TO FILE=GEOPRINTB
*****************************************************************

 2080 IF (KSCAN .EQ. 1) GO TO 20801
      KSCAN = 1
```

```
      OPEN (19,FILE= 'GEOPRINTB',STATUS='NEW',FORM='FORMATTE
20801 READ (20,REC=INUM,ERR=2083)KOUT
      KZ (1:54) = '
      PRINT *,KZ
      WRITE (19,101)KZ
101   FORMAT (A71)
      KZ(1:16) = '|  OBSERVATORY = '
      KZ(17:32)= KOUT (1:16)
      KZ(33:40)= '  CODE = '
      KZ(41:43)= KOUT(17:19)
      KZ(44:54)= '          | '
      PRINT *,KZ
      WRITE (19,101)KZ

      KZ(1:54) = '|                    ____________          __
      PRINT *,KZ
      WRITE (19,101)KZ

      KZ(1:54) = '|  LATITUDE =
      KZ (13:15) = KOUT (21:23)
      KZ (16:16) = '.'
      KZ (17:18) = KOUT (24:25)
      KZ (19:24) = ' NORTH'
      IF (KOUT(21:21) .EQ. '-') KZ(19:24) = ' SOUTH'
      IF (KOUT(22:22) .EQ. '-') KZ(19:24) = ' SOUTH'
      KZ (30:41) = 'LONGITUDE = '
      KZ (42:44) = KOUT (26:28)
      KZ (45:45) = '.'
      KZ (46:47) = KOUT (29:39)
      KZ (48:55) = ' EAST | '
      PRINT *,KZ
      WRITE (19,101)KZ

      KZ (1:54) ='| ____________________________________________
      PRINT *,KZ
      WRITE (19,101)KZ

      PRINT *, ' '
      KZ(1:54) ='YEAR  KAQ   MAGNETOGRAMS    HV-ANY       HV
      KZ(55:65) = '2.5-MINUTE'
      PRINT *,KZ
      WRITE (19,101)KZ

      KZ(1:40) = '
      KZ(41:54) = '              '
      KZ(55:68) = '1.0-MINUTE(*)'
      PRINT *,KZ
      WRITE (19,101)KZ

      KZ(1:30) = '___ __   ___________ __'
      KZ(31:39)= '_______ '
      KZ(41:68)= ' ____________________'
      PRINT *,KZ
      WRITE (19,101)KZ
      INUM=INUM+1
      GO TO 2082

2081  READ (20,REC=INUM,ERR=2083)KOUT
      INUM= INUM + 1
      IF (KOUT(1:3) .EQ. '   ') GO TO 2081
      IF (KOUT(17:19) .NE. ICODE(1:3)) GO TO 2083
2082  KZ(55:66) = KOUT(119:130)
      KZ(67:67)= ' '
      IF (KOUT(137:148) .NE. '            ')
     -KZ(55:66) = KOUT (137:148)
      IF (KOUT(137:148) .NE. '            ')
     -KZ(67:67) ='*'
      KZ(1:4) = KOUT (31:34)
      KZ (5:6) = '  '
      KZ (7:7) = KOUT(35:35)
      KZ (8:8) = KOUT (39:40)
      KZ (9:12) = '    '
      KZ (13:24) = KOUT (47:58)
      KZ (25:26) = ' '
      KZ (27:38) = KOUT (83:94)
      KZ (39:40) =  '  '
      KZ (41:52) = KOUT (101:112)
      KZ (53:54) = '  '
      PRINT *,KZ
      WRITE (19,101)KZ

20822 GO TO 2081

2083  GO TO 2010

*****************************************************************
*                                                               *
*                    CORRECT A RECORD                           *
*                    ----------------                           *
*****************************************************************

3000  IF (KOUT(17:19) .NE. '   ')GO TO 30002
      PRINT *, 'RECORD DOES NOT EXIST--TRY AGAIN'
      GO TO 2010

30002 IF (KMODE .EQ. 'CG') GO TO 6000
      PRINT *, 'WELCOME TO THE CORRECT ROUTINE'
30004 PRINT *, ' '
      KLC=2
      GO TO 4000
```

```
30001 KLC=0
      KBEGIN=INUM
      PRINT *, ' '
      PRINT *, 'DO YOU WANT A DESCRIPTION OF THE POSSIBLE
     - CHANGES  ENTER Y/N'
      READ (*,10)PASS
      IF (PASS(1:1) .EQ. 'N') GO TO 3002
3001  PRINT *, '
      PRINT *, 'YOU MAY NOT CHANGE OBSERVATORY CODE OR YEAR'
      PRINT *, 'ENTER E = TO END THE CORRECTION ROUTINE'
      PRINT *, 'ENTER 1 = TO CHANGE THE OBS NAME'
      PRINT *, 'ENTER 3 = TO CHANGE THE IAGA CODE'
      PRINT *, 'ENTER 4 = TO CHANGE THE GEOMAG LATITUTDE'
      PRINT *, 'ENTER 5 = TO CHANGE THE GEOMAG LONGITUTE'
      PRINT *, 'ENTER 7 = TO CHANGE THE K INDEX'
      PRINT *, 'ENTER 8 = TO CHANGE THE ELEMENTS'
      PRINT *, 'ENTER 9 = TO CHANGE THE NORMAL CENTER'
      PRINT *, 'ENTER 10 =TO CHANGE THE NORMAL MONTHS'
      PRINT *, 'ENTER 11 =TO CHANGE THE RAPID RUN CENTER'
      PRINT *, 'ENTER 12 =TO CHANGE THE RAPID RUN MONTHS'
      PRINT *, 'ENTER 13 =TO CHANGE THE ANY-SOURCE HV CENTER
      PRINT *, 'ENTER 14 =TO CHANGE THE ANY-SOURCE HV MONTHS
      PRINT *, 'ENTER 15 =TO CHANGE THE DIGITAL    HV CENTER
      PRINT *, 'ENTER 16 =TO CHANGE THE DIGITAL    HV MONTHS
      PRINT *, 'ENTER 17 =TO CHANGE THE 2.5-MINUTE    CENTER
      PRINT *, 'ENTER 18 =TO CHANGE THE 2.5-MINUTE    MONTHS
      PRINT *, 'ENTER 19 =TO CHANGE THE 1.0-MINUTE    CENTER
      PRINT *, 'ENTER 20 =TO CHANGE THE 1.0-MINUTE    MONTHS
      PRINT *, 'ENTER 21 =TO CHANGE THE 10-SECOND     CENTER
      PRINT *, 'ENTER 22 =TO CHANGE THE 10-SECOND     MONTHS
      PRINT *, 'ENTER 23 =TO CHANGE THE ANNUAL
      PRINT *, 'ENTER 24 =TO CHANGE THE Q-INDEX'
      PRINT *, 'ENTER 25 =TO CHANGE THE 1ST NORMAL FILM NUMB
      PRINT *, 'ENTER 26 =TO CHANGE THE 2ND NORMAL FILM NUMB
      PRINT *, 'ENTER 27 =TO CHANGE THE RAPID RUN  FILM NUMB
      PRINT *, 'ENTER 28 =TO CHANGE THE STORM      FILM NUMB
      PRINT *, 'ENTER 29 =TO CHANGE THE K          FILM NUMB
      PRINT *, 'ENTER 30 =TO CHANGE THE HV         FILM NUMB
3002  PRINT *, ' '
      PRINT *, 'ENTER ITEM NUMBER OF CHANGE 3-30 OR E=END'
      READ(*,10)KOP
30022 IF (KOP(1:1) .EQ. 'E') GO TO 3050
      IF (KOP(1:2) .EQ. '03')GO TO 3003
      IF (KOP(1:2) .EQ. '04')GO TO 3004
      IF (KOP(1:2) .EQ. '05')GO TO 3005
      IF (KOP(1:2) .EQ. '07')GO TO 3007
      IF (KOP(1:2) .EQ. '08')GO TO 3008
      IF (KOP(1:2) .EQ. '09')GO TO 3009
      IF (KOP(1:2) .EQ. '23') GO TO 3023
      IF (KOP(1:2) .EQ. '24') GO TO 3024
      IF (KOP(1:2) .EQ. '25') GO TO 3025
      IF (KOP(1:2) .EQ. '26') GO TO 3026
      IF (KOP(1:2) .EQ. '27') GO TO 3027
      IF (KOP(1:2) .EQ. '28') GO TO 3028
      IF (KOP(1:2) .EQ. '29') GO TO 3029
      IF (KOP(1:2) .EQ. '30') GO TO 3030
      IF (KOP(1:2) .EQ. '10') GO TO 3010
      IF (KOP(1:2) .EQ. '12') GO TO 3010
      IF (KOP(1:2) .EQ. '14') GO TO 3010
      IF (KOP(1:2) .EQ. '16') GO TO 3010
      IF (KOP(1:2) .EQ. '18') GO TO 3010
      IF (KOP(1:2) .EQ. '20') GO TO 3010
      IF (KOP(1:2) .EQ. '22') GO TO 3010
      IF (KOP(1:2) .EQ. '11') GO TO 3015
      IF (KOP(1:2) .EQ. '13') GO TO 3016
      IF (KOP(1:2) .EQ. '15') GO TO 3017
      IF (KOP(1:2) .EQ. '17') GO TO 3018
      IF (KOP(1:2) .EQ. '19') GO TO 3019
      IF (KOP(1:2) .EQ. '21') GO TO 3020
      IF (KOP(1:1) .EQ. '3')GO TO 3003
      IF (KOP(1:1) .EQ. '4')GO TO 3004
      IF (KOP(1:1) .EQ. '5')GO TO 3005
      IF (KOP(1:1) .EQ. '7')GO TO 3007
      IF (KOP(1:1) .EQ. '8')GO TO 3008
      IF (KOP(1:1) .EQ. '9')GO TO 3009
      IF (KOP(1:1) .EQ. '1') GO TO 3031
      IF (KOP(1:2) .EQ. '01')GO TO 3031
30021 PRINT *, 'INVALID--TRY AGAIN'
      GO TO 3002

3003  PRINT *, 'ENTER NEW IAGA CODE'
      READ (*,10)PASS
      KOUT(20:20)=PASS(1:1)
      GO TO 3062
3004  PRINT *, 'ENTER NEW LATITUDE'
      READ (*,10)PASS
      KOUT(21:25) = PASS(1:5)
      GO TO 3062
3005  PRINT *, 'ENTER NEW LONGITUTE'
      READ (*,10)PASS
      KOUT (26:30) = PASS (1:5)
      GO TO 3062
3007  PRINT *, 'ENTER NEW K INDEX'
      READ (*,10)PASS
      KOUT (35:35) = PASS (1:1)
      GO TO 3062
3008  PRINT *, 'ENTER NEW ELEMENTS DHZ OR XYZ'
      READ (*,10)PASS
      KOUT(36:38) = PASS(1:3)
      GO TO 3062
```

```
1001 3009  PRINT *, 'ENTER NEW NORMAL CENTERS'
1002       READ (*,10)PASS
1003       KOUT(41:46) = PASS(1:12)
1004       GO TO 3062
1005 3010  PRINT *, 'ENTER MONTHS (01,02,03, OR ALL)'
1006       READ (*,10)PASS
1007       PRINT *,PASS
1008       IF (PASS (1:3) .EQ. 'ALL') GO TO 3014
1009 3011  I1=1
1010       I2=2
1011       KMON(1:12) = '
1012       DO 3012 I=1,12
1013       IF (PASS(I1:I2) .EQ. '01')KMON (1:1)='J'
1014       IF (PASS(I1:I2) .EQ. '02')KMON (2:2)='F'
1015       IF (PASS(I1:I2) .EQ. '03')KMON (3:3)='M'
1016       IF (PASS(I1:I2) .EQ. '04')KMON (4:4)='A'
1017       IF (PASS(I1:I2) .EQ. '05')KMON (5:5)='M'
1018       IF (PASS(I1:I2) .EQ. '06')KMON (6:6)='J'
1019       IF (PASS(I1:I2) .EQ. '07')KMON (7:7)='J'
1020       IF (PASS(I1:I2) .EQ. '08')KMON (8:8)='A'
1021       IF (PASS(I1:I2) .EQ. '09')KMON (9:9)='S'
1022       IF (PASS(I1:I2) .EQ. '10')KMON (10:10)='O'
1023       IF (PASS(I1:I2) .EQ. '11')KMON (11:11)='N'
1024       IF (PASS(I1:I2) .EQ. '12')KMON (12:12)='D'
1025       I1=I1+3
1026       I2=I2+3
1027 3012  CONTINUE
1028
1029 3013  IF (KOP (1:2) .EQ. '10') KOUT (47:58)   = KMON(1:12)
1030       IF (KOP (1:2) .EQ. '12') KOUT (65:76)   = KMON(1:12)
1031       IF (KOP (1:2) .EQ. '14') KOUT (83:94)   = KMON(1:12)
1032       IF (KOP (1:2) .EQ. '16') KOUT (101:112) = KMON(1:12)
1033       IF (KOP (1:2) .EQ. '18') KOUT (119:130) = KMON(1:12)
1034       IF (KOP (1:2) .EQ. '20') KOUT (137:148) = KMON(1:12)
1035       IF (KOP (1:2) .EQ. '22') KOUT (155:166) = KMON(1:12)
1036       GO TO 3062
1037 3014  KMON (1:12) = 'JFMAMJJASOND'
1038       GO TO 3013
1039
1040 3015  PRINT *, 'ENTER NEW RAPID RUN CENTERS'
1041       READ (*,10)PASS
1042       KOUT(59:64) = PASS(1:12)
1043       GO TO 3062
1044 3016  PRINT *, 'ENTER NEW HV ANY CENTERS'
1045       READ (*,10)PASS
1046       KOUT(77:82) = PASS(1:12)
1047       GO TO 3062
1048 3017  PRINT *, 'ENTER NEW HV DIGITAL CENTERS'
1049       READ (*,10)PASS
1050       KOUT(95:100) = PASS(1:12)
1051       GO TO 3062
1052 3018  PRINT *, 'ENTER NEW 2.5-MINUTE CENTERS'
1053       READ (*,10)PASS
1054       KOUT(113:118) = PASS(1:12)
1055       GO TO 3062
1056 3019  PRINT *, 'ENTER NEW 1.0-MINUTE CENTERS'
1057       READ (*,10)PASS
1058       KOUT(131:136) = PASS(1:12)
1059       GO TO 3062
1060 3020  PRINT *, 'NTER NEW 10-SECOND CENTERS'
1061       READ (*,10)PASS
1062       KOUT(149:154) = PASS(1:12)
1063       GO TO 3062
1064
1065
1066 3023  PRINT *, 'ENTER NEW ANNUAL NOTATION'
1067       READ (*,10)PASS
1068       KOUT (39:39) = PASS(1:1)
1069       GO TO 3062
1070 3024  PRINT *, 'ENTER NEW Q-INDEX'
1071       READ (*,10)PASS
1072       KOUT (40:40) = PASS(1:1)
1073       GO TO 3062
1074 3025  PRINT *, 'ENTER NEW FILM NUMBER FOR 1ST NORMAL'
1075       READ (*,10)PASS
1076       KOUT (167:171) = PASS(1:5)
1077       GO TO 3062
1078 3026  PRINT *, 'ENTER NEW FILM NUMBER FOR 2ND NORMAL'
1079       READ (*,10)PASS
1080       KOUT (172:176) = PASS(1:5)
1081       GO TO 3062
1082 3027  PRINT *, 'ENTER NEW FILM NUMBER FOR RAPID RUN'
1083       READ (*,10)PASS
1084       KOUT (177:181) = PASS(1:5)
1085       GO TO 3062
1086 3028  PRINT *, 'ENTER NEW FILM NUMBER FOR STORM'
1087       READ (*,10)PASS
1088       KOUT (182:186) = PASS(1:5)
1089       GO TO 3062
1090 3029  PRINT *, 'ENTER NEW FILM NUMBER FOR K INDICES'
1091       READ (*,10)PASS
1092       KOUT (187:191) = PASS (1:5)
1093       GO TO 3062
1094 3030  PRINT *, 'ENTER NEW FILM NUMBER FOR HOURLY VALUES'
1095       READ (*,10)PASS
1096       KOUT (192:196) = PASS(1:5)
1097       GO TO 3062
1098
1099 3031  IF (KOUT(1:5) .NE. '     ') GO TO 30021
1100       PRINT *,'ENTER NAME OF OBSERVATORY'
```

```
      READ (*,10)KOUT(1:16)
      GO TO 3062

3050  IF (KMODE (1:2) .EQ. 'CG')GO TO 2010
      KLC=1
      GO TO 4000
3051  KLC=0
      PRINT *, 'IS THIS RECORD CORRECT ENTER Y/N'
      READ (*,10)PASS
      IF (PASS(1:1) .EQ. 'Y' ) GO TO 3052
      GO TO 3062
3052  WRITE (20,REC=INUM)KOUT
      GO TO 2010

*************************************************************
*                    GROUP CORRECT                          *
*                    -------------                          *
*     FOR CG (GROUP CORRECT SECTION)                        *
*     CORRECT EACH RECORD FOR ONE ITEM AT A TIME            *
*************************************************************

3062  IF (KMODE(1:2) .EQ. 'C ')GO TO 3002
      PRINT *,'                                          '
      PRINT *,'|  THE FOLLOWING RECORDS WERE CORRECTED  |'
      PRINT *,'|                                        |'
      PRINT *,'|                                        |'

30622 WRITE (20,REC=INUM)KOUT
      PRINT *,KOUT(1:34)
      INUM=INUM+1
      IF (INUM .GT. INUME)GO TO 3064
3063  READ(20,REC=INUM)KOUT
      GO TO 6020

3064  INUM=KBEGIN
      PRINT *,'INUM= ',INUM
      READ(20,REC=INUM)KOUT
      GO TO 3002
4000  CALL GEOLST (KOUT)
      IF (KMODE .EQ. 'D') GO TO 4001
      IF (KLC .EQ. 1) GO TO 3051
      IF (KLC .EQ. 2) GO TO 30001
      IF (KLC .EQ. 4) GO TO 2063
      PRINT *,'ENTER A=ADD C=CORRECT D=DELETE L=LIST
     -E=END CG=CORRRECT GROUP'
      GO TO 20101

*************************************************************
*                                                           *
*                    DELETE A RECORD                        *
*                    --------------                         *
*************************************************************

4001  PRINT *, 'DO YOU REALLY WANT TO DELETE THIS RECORD'
      PRINT *, 'ENTER Y/N'
      READ (*,10)PASS
      IF (PASS(1:1) .EQ. 'Y') GO TO 4002
      GO TO 2010
4002  WRITE (20,REC=INUM)KSPACE
      GO TO 2010
5000  GO TO 9999

*************************************************************
*
*     CORRRECT A GROUP OF YEARS FOR THE SAME OBSERVATORY
*
*************************************************************

6000  PRINT *,'WELCOME TO THE GROUP CORRECT'
      PRINT *, ' '
      INUME = IHOLD + (LE - K19YR (J))
      PRINT *,'LOCATION OF LAST REQUESTED OBS/YEAR = ',INUME
      READ (20,REC=INUME,ERR=2025)KOUT2
      IF (KOUT(1:16) .NE. KOUT2(1:16))GO TO 6010
6001  GO TO 30004

6010  PRINT *,'*** ERROR *** NO SUCH LAST RECORD--TRY AGAIN'
      PRINT *,KOUT2(1:50)
      GO TO 2010
6020  IF (KOP(1:2) .EQ. '03')GO TO 6023
      IF (KOP(1:2) .EQ. '04')GO TO 6024
      IF (KOP(1:2) .EQ. '05')GO TO 6025
      IF (KOP(1:2) .EQ. '07')GO TO 6027
      IF (KOP(1:2) .EQ. '08')GO TO 6028
      IF (KOP(1:2) .EQ. '09')GO TO 6029
      IF (KOP(1:2) .EQ. '23') GO TO 6043
      IF (KOP(1:2) .EQ. '24') GO TO 6044
      IF (KOP(1:2) .EQ. '25') GO TO 6045
      IF (KOP(1:2) .EQ. '26') GO TO 6046
      IF (KOP(1:2) .EQ. '27') GO TO 6047
      IF (KOP(1:2) .EQ. '28') GO TO 6048
      IF (KOP(1:2) .EQ. '29') GO TO 6049
      IF (KOP(1:2) .EQ. '30') GO TO 6050
      IF (KOP(1:2) .EQ. '10') GO TO 6030
      IF (KOP(1:2) .EQ. '12') GO TO 6030
      IF (KOP(1:2) .EQ. '14') GO TO 6030
      IF (KOP(1:2) .EQ. '16') GO TO 6030
      IF (KOP(1:2) .EQ. '18') GO TO 6030
      IF (KOP(1:2) .EQ. '20') GO TO 6030
      IF (KOP(1:2) .EQ. '22') GO TO 6030
```

```
      IF (KOP(1:2) .EQ. '24') GO TO 6030
      IF (KOP(1:2) .EQ. '11') GO TO 6035
      IF (KOP(1:2) .EQ. '13') GO TO 6036
      IF (KOP(1:2) .EQ. '15') GO TO 6037
      IF (KOP(1:2) .EQ. '17') GO TO 6038
      IF (KOP(1:2) .EQ. '19') GO TO 6039
      IF (KOP(1:2) .EQ. '21') GO TO 6040
      IF (KOP(1:1) .EQ. '3')GO TO 6023
      IF (KOP(1:1) .EQ. '4')GO TO 6024
      IF (KOP(1:1) .EQ. '5')GO TO 6025
      IF (KOP(1:1) .EQ. '7')GO TO 6027
      IF (KOP(1:1) .EQ. '8')GO TO 6028
      IF (KOP(1:1) .EQ. '9')GO TO 6029
      IF (KOP(1:1) .EQ. '1') GO TO 6051
      IF (KOP(1:2) .EQ. '01')GO TO 6051

 6023 KOUT(20:20)=PASS(1:1)
      GO TO 30622
 6024 KOUT(21:25) = PASS(1:5)
      GO TO 30622
 6025 KOUT (26:30) = PASS (1:5)
      GO TO 30622
 6027 KOUT (35:35) = PASS (1:1)
      GO TO 30622
 6028 KOUT(36:38) = PASS(1:3)
      GO TO 30622
 6029 KOUT(41:46) = PASS(1:6)
      GO TO 30622
 6030 IF (KOP (1:2) .EQ. '10') KOUT (47:58)   = KMON(1:12)
      IF (KOP (1:2) .EQ. '12') KOUT (65:76)   = KMON(1:12)
      IF (KOP (1:2) .EQ. '14') KOUT (83:94)   = KMON(1:12)
      IF (KOP (1:2) .EQ. '16') KOUT (101:112) = KMON(1:12)
      IF (KOP (1:2) .EQ. '18') KOUT (119:130) = KMON(1:12)
      IF (KOP (1:2) .EQ. '20') KOUT (137:148) = KMON(1:12)
      IF (KOP (1:2) .EQ. '22') KOUT (155:166) = KMON(1:12)
      GO TO 30622
 6035 KOUT(59:64) = PASS(1:6)
      GO TO 30622
 6036 KOUT(77:82) = PASS(1:6)
      GO TO 30622
 6037 KOUT(95:100) = PASS(1:6)
      GO TO 30622
 6038 KOUT(113:118) = PASS(1:6)
      GO TO 30622
 6039 KOUT(131:136) = PASS(1:6)
      GO TO 30622
 6040 KOUT(149:154) = PASS(1:6)
      GO TO 30622

 6043 KOUT (39:39) = PASS(1:1)
      GO TO 30622
 6044 KOUT (40:40) = PASS(1:1)
      GO TO 30622
 6045 KOUT (167:171) = PASS(1:5)
      GO TO 30622
 6046 KOUT (172:176) = PASS(1:5)
      GO TO 30622
 6047 KOUT (177:181) = PASS(1:5)
      GO TO 30622
 6048 KOUT (182:186) = PASS(1:5)
      GO TO 30622
 6049 KOUT (187:191) = PASS(1:5)
      GO TO 30622
 6050 KOUT (192:196) = PASS(1:5)
      GO TO 30622
 6051 GO TO 30622
 6052 GO TO 30622
************************************************************
*                                                          *
*        ADD CORRECTIONS TO GROUP OF RECORDS               *
*        ___________________________________               *
*                                                          *
************************************************************
 7000 CALL SUBAG (KOUT,INUM,L,LE)
      GO TO 2010
************************************************************
*                                                          *
*        LIST OUT ALTERNATE OBSERVATORY NAMES              *
*        ____________________________________              *
************************************************************
 7050 CALL SUBAN
      GO TO 2010

************************************************************
*     LIST OUT THE INDEX AND POINTERS                      *
************************************************************
 8000 DO 8001 I=1,500,5
      PRINT *,KCODE (I),KNUM(I), ' ',KCODE (I+1),
     -KNUM (I+1),' ',
     -KCODE(I+2),KNUM(I+2), ' ',KCODE (I+3),KNUM(I+3),' ',
     -KCODE(I+4),KNUM(I+4)
 8001 CONTINUE
      GO TO 2010
************************************************************
*                                                          *
*                D U M P   D A T A   B A S E               *
*                _____________________________             *
*                                                          *
*     1)  DUMP RANDOM ACCESS FILE INTO SEQUENTIAL FILE     *
*     2)  DELETE ALL BLANK RECORDS                         *
```

```
1301 ************************************************************
1302
1303 1050  PRINT *,'ENTER SYSTEM PASSWORD'
1304       READ (*,10)PASS
1305       IF (PASS (1:7) .EQ. 'GEODUMP') GO TO 1051
1306       GO TO 9999
1307 1051  PRINT *, 'OPEN INPUT (GEOBASE) AND OUTPUT (SEQ) FILES'
1308       OPEN (20,FILE='GEOBASE',ACCESS='DIRECT',
1309      -RECL=200,FORM='UNFORMATTED')
1310       OPEN (21,FILE='SEQ',ACCESS='DIRECT',
1311      -RECL=200,FORM='UNFORMATTED',STATUS='NEW')
1312       PRINT *, 'FILES ARE OPENED'
1313 1052  INUM = 35
1314       J=1
1315       KLOOP=0
1316 1053  READ (20,REC=INUM,ERR=1054) KOUT
1317       INUM = INUM + 1
1318       IF (KOUT(17:19) .EQ. '   ') GO TO 1053
1319       WRITE (21,REC=J)KOUT
1320       J = J+1
1321       KLOOP=KLOOP+1
1322       IF (KLOOP .NE. 1000) GO TO 1053
1323       KLOOP=0
1324       PRINT *,'RECORD JUST WRITTEN = ',KOUT(17:19),' ',
1325      - KOUT(31:34),' ',J
1326       GO TO 1053
1327
1328 1054  PRINT *, 'ALL RECORDS HAVE BEEN WRITTEN TO FILE: SEQ'
1329       PRINT *, 'NUMBER RECORDS = ',J
1330       CLOSE (21)
1331 ************************************************************
1332 *                                                          *
1333 *                     END OF PROGRAM                       *
1334 *                     ______________                       *
1335 ************************************************************
1336 9999  PRINT *, 'END OF GEOMAGNETIC UPDATE PROGRAM'
1337       IF (KSCAN .EQ. 1)
1338      -PRINT *,'RESULTS FROM SCAN ARE ON FILE GEOPRINTB'
1339       IF (KREIN .EQ. 0) GO TO 99999
1340 ************************************************************
1341 *     A NEW OBSERVATORY HAS ADDED                          *
1342 *     1)  REWRITE ALL INDICES                              *
1343 ************************************************************
1344       GO TO 10203
1345
1346 99999 END
1347
1348
1349
```

```
 4000  SUBROUTINE GEOLST (KOUT)
*************************************************************
*                                                           *
*     LIST ONE RECORD                                       *
*                                                           *
*************************************************************
      CHARACTER*200 KOUT
      CHARACTER*71  KZ

      PRINT *, 'LIST ONE RECORD '
      KZ(1:30)='______________________________'
      KZ(31:71)='_________________________________________'
      PRINT *,KZ

      KZ(1:38) = '|  OBSERVATORY NAME        (01)     | '
      KZ(39:54)= KOUT(1:16)
      KZ(55:64) = '          |'
      PRINT *,KZ

      KZ(1:38) = '|  OBSERVATORY CODE        (02)     | '
      KZ(39:41)= KOUT(17:19)
      KZ(42:64) = '                       |           '
      PRINT *,KZ

      KZ(1:38) = '|  YEAR                    (06)     | '
      KZ(39:42)= KOUT(31:34)
      KZ(43:64) = '                      |        '
      PRINT *,KZ

      IF (KOUT(20:20) .NE. ' ')
     -PRINT *, '(03) IAGA CODE           ::      ',
     -KOUT(20:20)

      KZ(1:38) = '|  LATITUDE (NORTH)        (04)     | '
      KZ(39:43)= KOUT(21:25)
      KZ(44:45) = ' ('
      KZ(46:48) = KOUT(21:23)
      KZ(49:49) = '.'
      KZ(50:51) = KOUT (24:25)
      KZ(53:53) = ')'
      KZ(54:64) = '          |        '
      PRINT *,KZ

      KZ(1:38) = '|  LONGITUDE (EAST)        (05)     | '
      KZ(39:43)= KOUT(26:30)
      KZ(44:45) = ' ('
      KZ(46:48) = KOUT(26:28)
      KZ(49:49) = '.'
      KZ(50:51) = KOUT (29:30)
      KZ(53:53) = ')'
      KZ(54:64) = '          |        '
      PRINT *,KZ
      KZ(1:30)='______________________________'
      KZ(31:71)='_________________________________________'

      PRINT *,KZ

      KZ(1:22) = '           TYPE OF DATA'
      KZ(23:48)= '            CENTERS       '
      KZ(49:71)= ' MONTHS                  '
      PRINT *,KZ
      KZ(1:30)='______________________________'
      KZ(31:71)='_________________________________________'
      PRINT *,KZ

      KZ(1:34) = '| NORMAL MAGNETOGRAMS       (09) | '
      KZ(35:40)= KOUT(41:46)
      KZ(41:43)= ' | '
      KZ(44:55) = KOUT(47:58)
      KZ(56:64) = ' | (10) | '
      PRINT *,KZ

      KZ(1:34) = '| RAPID RUN MAGNETOGRAMS   (11) | '
      KZ(35:40) = KOUT(59:64)
      KZ(41:43) = ' | '
      KZ(44:55) = KOUT(65:76)
      KZ(56:64) = ' | (12) | '
      PRINT *,KZ

      KZ(1:34) = '| HOURLY VALUES-ANY SOURCE (13) | '
      KZ(35:40)=  KOUT(77:82)
      KZ(41:43)= ' | '
      KZ(44:55)=  KOUT(83:94)
      KZ(56:64) = ' | (14) | '
      PRINT *,KZ

      KZ(1:34) = '| HOURLY VALUES-DIGITAL    (15) | '
      KZ(35:40)=  KOUT(95:100)
      KZ(41:43)= ' | '
      KZ(44:55)=  KOUT(101:112)
      KZ(56:64) = ' | (16) | '
      PRINT *,KZ

      KZ(1:34) = '| 2.5-MINUTE               (17) | '
      KZ(35:40)=  KOUT(113:118)
      KZ(41:43)= ' | '
      KZ(44:55)=  KOUT(119:130)
      KZ(56:64) = ' | (18) | '
      PRINT *,KZ
```

```
1450        KZ(1:34) = '|  1.0-MINUTE                    (19) | '
1451        KZ(35:40)=  KOUT(131:136)
1452        KZ(41:43)= ' | '
1453        KZ(44:55)=  KOUT(137:148)
1454        KZ(56:64) = ' |  (20) | '
1455        PRINT *,KZ
1456
1457        KZ(1:34) = '|  1.0-SECOND                    (21) | '
1458        KZ(35:40)=  KOUT(149:154)
1459        KZ(41:43)= ' | '
1460        KZ(44:55)=  KOUT(155:166)
1461        KZ(56:64) = ' |  (22) | '
1462        PRINT *,KZ                                          '
1463        KZ(1:30)='_____________________________
1464        KZ(31:71)='_____________________________________
1465
1466        PRINT *,KZ
1467
1468        KZ(1:27) = '|  K INDEX                 (07) |  '
1469        KZ(28:28)= KOUT(35:35)
1470        KZ(29:36) = '      || '
1471        KZ(37:62) = 'OBSERVED ELEMENTS  (08) |  '
1472        KZ(63:65) = KOUT(36:38)
1473        KZ(66:71) = '     | '
1474        PRINT *,KZ
1475
1476        KZ(1:27) = '|  ANNUAL NOTATION    (23) | '
1477        KZ(28:28)= KOUT(39:39)
1478        KZ(29:36) = '      || '
1479        KZ(37:62) = 'Q INDEX                (24) | '
1480        KZ(63:63) = KOUT(40:40)
1481        KZ(64:71) = '       | '
1482        PRINT *,KZ
1483
1484        KZ(1:27) = '|  FILM---NORMAL 1    (25) | '
1485        KZ(28:32)= KOUT(167:171)
1486        KZ(33:36) = ' || '
1487        KZ(37:62) = 'FILM---NORMAL 2     (26) | '
1488        KZ(63:67) = KOUT(172:176)
1489        KZ(68:71) = '   | '
1490        PRINT *,KZ
1491
1492        KZ(1:27) = '|  FILM---RAPID RUN  (27) | '
1493        KZ(28:32)= KOUT(177:181)
1494        KZ(33:36) = ' || '
1495        KZ(37:62) = 'FILM---STORM        (28) | '
1496        KZ(63:67) = KOUT(182:186)
1497        KZ(68:71) = '   | '
1498        PRINT *,KZ
1499
1500        KZ(1:27) = '|  FILM---K INDICES  (29) | '
1501        KZ(28:32)= KOUT(187:191)
1502        KZ(33:36) = ' || '
1503        KZ(37:62) = 'FILM---HV           (30) | '
1504        KZ(63:67) = KOUT(192:196)
1505        KZ(68:71) = '   | '
1506        PRINT *,KZ
1507
1508        RETURN
1509        END
1510
```

```
      SUBROUTINE SUBAG (KOUT,INUM,L,LE)
*************************************************************
*                                                           *
*        ADD CORRECTIONS TO GROUP OF RECORDS                *
*        ___________________________________                *
*                                                           *
*************************************************************
      CHARACTER*2   KOP
      CHARACTER*200 KOUT
      CHARACTER*200 KOUT2
      CHARACTER*12  PASS
10    FORMAT (A)
      PRINT *,'SUBROUTINE K19YRX = ',K19YRX
7000  PRINT *,'WELCOME TO ADD OR DELETE CENTERS'
      PRINT *,'    TO A GROUP OF RECORDS          '
      PRINT *,'                                   '
      PRINT *,'| 1) YOU MAY DELETE ANY CENTERS AND |'
      PRINT *,'| 2)  YOU MAY ADD    ANY CENTERS    |'
      PRINT *,'| THE CENTERS ARE LISTED AS ABCDEI   |'
      PRINT *,'| TO ADD    ONE OR MORE CENTERS      |'
      PRINT *,'| ENTER A-I IN CORRECT POSITION      |'
      PRINT *,'                                   '
      PRINT *,'TO DELETE ONE OR MORE CENTERS'
      PRINT *,'ENTER X  IN CORRECT POSITIONS'
      PRINT *,' '
70001 INUME = INUM + (LE - L)
      PRINT *,'LOCATION OF LAST REQUESTED OBS/YEAR = ',INUME
      READ (20,REC=INUME,ERR=9999)KOUT2
      IF (KOUT(1:16) .NE. KOUT2(1:16))GO TO 9999

      CALL GEOLST (KOUT)
      KK=0
7001  PRINT *,'
      PRINT *, '| ENTER E = TO END THE CORRECTION      ROUTI
      PRINT *, '| ENTER 9 = TO CHANGE THE NORMAL        CENT
      PRINT *, '| ENTER 11 =TO CHANGE THE RAPID RUN     CENT
      PRINT *, '| ENTER 13 =TO CHANGE THE ANY-SOURCE HV CENT
      PRINT *, '| ENTER 15 =TO CHANGE THE DIGITAL    HV CENT
      PRINT *, '| ENTER 17 =TO CHANGE THE 2.5-MINUTE    CENT
      PRINT *, '| ENTER 19 =TO CHANGE THE 1.0-MINUTE    CENT
      PRINT *, '| ENTER 21 =TO CHANGE THE 10-SECOND     CENT
      PRINT *,'
      PRINT *,' '

7002  READ (*,10)KOP
7003  IF (KOP(1:1) .EQ. 'E') GO TO 9999

7008  IF (KOP(1:1) .EQ. '9') GO TO 7009
      IF (KOP(1:2) .EQ. '09')GO TO 7009
      IF (KOP(1:2) .EQ. '11')GO TO 7011
      IF (KOP(1:2) .EQ. '13')GO TO 7013
      IF (KOP(1:2) .EQ. '15')GO TO 7015
      IF (KOP(1:2) .EQ. '17')GO TO 7017
      IF (KOP(1:2) .EQ. '19')GO TO 7019
      IF (KOP(1:2) .EQ. '21')GO TO 7021
      GO TO 7001

7009  PRINT *, 'ENTER NEW NORMAL CENTERS'
      READ (*,10)PASS
70091 K=40
      DO 70092 I=1,6
      K=K+1
      IF (PASS(I:I) .EQ. 'X') KOUT(K:K) = ' '
      IF (PASS(I:I) .EQ. 'X') GO TO 70092
      IF (PASS(I:I) .EQ. ' ') GO TO 70092
      KOUT(K:K) = PASS(I:I)
70092 CONTINUE
      GO TO 7062
7011  PRINT *, 'ENTER NEW RAPID-RUN CENTERS'
      READ (*,10)PASS

70111 K=58
      DO 70112 I=1,6
      K=K+1
      IF (PASS(I:I) .EQ. 'X') KOUT(K:K) = ' '
      IF (PASS(I:I) .EQ. 'X') GO TO 70112
      IF (PASS(I:I) .EQ. ' ') GO TO 70112
      KOUT(K:K) = PASS(I:I)
70112 CONTINUE
      GO TO 7062
7013  PRINT *, 'ENTER NEW HV-ANY MEDIUM CENTERS'
      READ (*,10)PASS
70131 K=76
      DO 70132 I=1,6
      K=K+1
      IF (PASS(I:I) .EQ. 'X') KOUT(K:K) = ' '
      IF (PASS(I:I) .EQ. 'X') GO TO 70132
      IF (PASS(I:I) .EQ. ' ') GO TO 70132
      KOUT(K:K) = PASS(I:I)
70132 CONTINUE
      GO TO 7062
7015  PRINT *, 'ENTER NEW HV-DIGITAL CENTERS'
      READ (*,10)PASS
70151 K=94
      DO 70152 I=1,6
      K=K+1
      IF (PASS(I:I) .EQ. 'X') KOUT(K:K) = ' '
      IF (PASS(I:I) .EQ. 'X') GO TO 70152
      IF (PASS(I:I) .EQ. ' ') GO TO 70152
      KOUT(K:K) = PASS(I:I)
```

```
70152 CONTINUE
      GO TO 7062
7017  PRINT *, 'ENTER NEW 2.5-MINUTE CENTERS'
      READ (*,10)PASS
70171 K=112
      DO 70172 I=1,6
      K=K+1
      IF (PASS(I:I) .EQ. 'X') KOUT(K:K) = ' '
      IF (PASS(I:I) .EQ. 'X') GO TO 70172
      IF (PASS(I:I) .EQ. ' ') GO TO 70172
      KOUT(K:K) = PASS(I:I)
70172 CONTINUE
      GO TO 7062
7019  PRINT *, 'ENTER NEW 1.0-MINUTE CENTERS'
      READ (*,10)PASS
70191 K=130
      DO 70192 I=1,6
      K=K+1
      IF (PASS(I:I) .EQ. 'X') KOUT(K:K) = ' '
      IF (PASS(I:I) .EQ. 'X') GO TO 70192
      IF (PASS(I:I) .EQ. ' ') GO TO 70192
      KOUT(K:K) = PASS(I:I)
70192 CONTINUE
      GO TO 7062
7021  PRINT *, 'ENTER NEW 10-SECOND CENTERS'
      READ (*,10)PASS
70211 K=148
      DO 70212 I=1,6
      K=K+1
      IF (PASS(I:I) .EQ. 'X') KOUT(K:K) = ' '
      IF (PASS(I:I) .EQ. 'X') GO TO 70212
      IF (PASS(I:I) .EQ. ' ') GO TO 70212
      KOUT(K:K) = PASS(I:I)
70212 CONTINUE
      GO TO 7062

7018  IF (KOP(1:1) .EQ. '9') GO TO 70091
      IF (KOP(1:2) .EQ. '09')GO TO 70091
      IF (KOP(1:2) .EQ. '11')GO TO 70111
      IF (KOP(1:2) .EQ. '13')GO TO 70131
      IF (KOP(1:2) .EQ. '15')GO TO 70151
      IF (KOP(1:2) .EQ. '17')GO TO 70171
      IF (KOP(1:2) .EQ. '19')GO TO 70191
      IF (KOP(1:2) .EQ. '21')GO TO 70211

7062  KK=KK+1
      IF (KK .GT. 1)GO TO 7063
      PRINT *,'
      PRINT *,'  THE FOLLOWING RECORDS WERE CORRECTED
      PRINT *,'
      PRINT *,'
      PRINT *,'

7063  WRITE (20,REC=INUM)KOUT
      PRINT *,KOUT(1:34)
      INUM=INUM+1
      IF (INUM .GT. INUME)GO TO 7065
7064  READ(20,REC=INUM)KOUT
      GO TO 7018

7065  INUM=KBEGIN
      PRINT *,'INUM= ',INUM
      READ(20,REC=INUM)KOUT
      GO TO 9999
9999  RETURN
      END
```

```
      SUBROUTINE SUBAN
C
C*********************************************************
C*         ALTERNATINE NAME SUBROUTINE                   *
C*********************************************************
C
      CHARACTER*46 KNAME (94)

      KNAME (1) = 'AMSTERDAM ISLAND     = MARTIN DE VIVIES (
      KNAME (2) = 'AMUNDSEN SCOTT       = SOUTH POLE       (
      KNAME (3) = 'ARCTICA I  (NP-6)    = NORTH POLE 6     (
      KNAME (4) = 'ARCTICA II (NP-7)    = NORTH POLE 7     (
      KNAME (5) = 'ARCTICA    (NP-8)    = NORTH POLE 8     (
      KNAME (6) = 'ARCTICA    (NP-10)   = NORTH POLE 10    (
      KNAME (7) = 'AREQUIPA             = CHARACATO        (
      KNAME (8) = 'ATHENS               = PENDELI          (
      KNAME (9) = 'AZORES               = SAO MIGUEL       (
      KNAME (10)= 'BAUDOUIN             = ROI BAUDOUIN     (
      KNAME (11)= 'BEREZNYAKI           = KARAGANDA        (
      KNAME (12)= 'BJORNOYA             = BEAR ISLAND      (
      KNAME (13)= 'CENTRO GEOFICISO     = HAVANA           (
      KNAME (14)= 'CHELYUSKIN           = CAPE CHELYUSKIN  (
      KNAME (15)= 'CHRISTCHURCH         = AMBERLEY         (
      KNAME (16)= 'COLABA               = ALIBAG           (
      KNAME (17)= 'CROZET               = PORT ALFRED      (
      KNAME (18)= 'DEHRA DUN            = SABHAWALA        (
      KNAME (19)= 'DIKSON               = DIXON ISLAND     (
      KNAME (20)= 'DRUZHNAYA            = HEISS ISLAND     (
      KNAME (21)= 'DUSHETI              = TBILISI          (
      KNAME (22)= 'DYMER                = KIEV             (
      KNAME (23)= 'FANNING ISLAND       = FANNING          (
      KNAME (24)= 'FARADAY              = ARGENTINE ISLANDS(
      KNAME (25)= 'GENOVA               = MONTE CAPELLINO  (
      KNAME (26)= 'GOOSE BAY            = MELVILLE AFB     (
      KNAME (27)= 'GORNOTAYEZHNAYA      = VLADIVOSTOK      (
      KNAME (28)= 'HAWAII               = HONOLULU         (
      KNAME (29)= 'HATIJO (HACHIYOJIMA) = HACHIJO          (
      KNAME (30)= 'HALLETT              = CAPE HALLETT     (
      KNAME (31)= 'ISLA DE PASCUA       = EASTER ISLAND    (
      KNAME (32)= 'KAMCHATKA            = PETROPAVLOVSK    (
      KNAME (33)= 'KARAVIA              = ELIZABETHVILLE   (
      KNAME (34)= 'KAZALINSKAYA         = NOVOKAZALINSKAY  (
      KNAME (35)= 'KERGUELIN            = PORT-AUX-FRANCAIS(
      KNAME (36)= 'KINSHASA-BINZA       = BINZA            (
      KNAME (37)= 'KLEINE KARMAKUL      = MALIYE KARMAKULY (
      KNAME (38)= 'KLYUCHI              = NOVOSIBIRSK      (
      KNAME (39)= 'KRASNAYA PAKHRA      = MOSCOW           (
      KNAME (40)= 'LAS MESAS            = CANARIAS         (
      KNAME (41)= 'LAZAREV              = NOVOLAZAREVSKAYA (
      KNAME (42)= 'LEOPOLDVILLE         = BINZA            (
      KNAME (43)= 'LOURENZO MARQUEZ     = MAPUTO           (
      KNAME (44)= 'LAUNDA BELAS         = LUANDA           (
      KNAME (45)= 'LOPARSKOYE           = MURMANSK         (
      KNAME (46)= 'N STEKOLINIY         = MAGADAN          (
      KNAME (47)= 'NIDA                 = NYDA             (
      KNAME (48)= 'NY-ALESUND           = NEW AALESUND     (
      KNAME (49)= 'PARATUNKA            = PETROPAVLOVSK    (
      KNAME (50)= 'PATRONY              = IRKUTSK          (
      KNAME (51)= 'PEKING               = BEIJING          (
      KNAME (52)= 'PLESHNITZI           = MINSK            (
      KNAME (53)= 'PODKAMENNAYA TUNGUSKA= P. TUNGUSKA      (
      KNAME (54)= 'POINT BARROW         = BARROW           (
      KNAME (55)= 'PUERTO RICO          = SAN JUAN         (
      KNAME (56) ='PRUHONICE            = PRAGUE           (
      KNAME (57) ='RED LAKE             = LENINGRAD        (
      KNAME (58) ='REYKJAVIK            = LEIRVOGUR        (
      KNAME (59) ='SANAE STATION        = SANAE            (
      KNAME (60) ='SHE-SHAN             = SHESHAN          (
      KNAME (61) ='SHANGHAI             = SHESHAN          (
      KNAME (62) ='SYOWA BASE           = SYOWA STATION    (
      KNAME (63) ='STEPANOVKA           = ODESSA           (
      KNAME (64) ='STEKOLINIY           = MAGADAN          (
      KNAME (65) ='ST. PETERBURG        = LENINGRAD        (
      KNAME (66) ='TAHITI               = PAMATAI          (
      KNAME (67) ='TENERIFE             = CANARIAS         (
      KNAME (68) ='TEVRIS               = TEVRIZ           (
      KNAME (69) ='THULE/CAMP TUTO      = THULE AFB        (
      KNAME (70) ='THULE/QANAQ          = THULE            (
      KNAME (71) ='THULE I              = THULE            (
      KNAME (72) ='THULE II             = THULE            (
      KNAME (73) ='TIKSI BAY            = TIXIE BAY        (
      KNAME (74) ='TORTOSA              = EBRO             (
      KNAME (75) ='TUNGUSKA             = P. TUNGUSKA      (
      KNAME (76) ='UELEN                = CAPE WELLEN      (
      KNAME (77) ='USSURISK             = VLADIVOSTOK      (
      KNAME (78) ='VANNOVSKAYA          = ASHKHABAD        (
      KNAME (79) ='V. DUBROVO           = SVERDLOVSK       (
      KNAME (80) ='VOYEYKOVO            = LENINGRAD        (
      KNAME (81) ='VOROSHILOV           = VLADIVOSTOK      (
      KNAME (82) ='WARSAWA              = SWIDER           (
      KNAME (83) ='WHITE SHELL          = WHITESHELL       (
      KNAME (84) ='WIEN AUHOF           = WIEN-KOBENZL     (
      KNAME (85) ='WIEN AYHOF           = WIEN-KOBENZL     (
      KNAME (86) ='YANGI-BAZAR          = TASHKENT         (
      KNAME (87) ='ZAYMISHCHE           = KAZAN            (
      KNAME (88) ='ZO-SE                = SHESHAN          (
      KNAME (89) ='ZUY                  = IRKUTSK          (

      PRINT *,    'OLD NAME               CATALOG NAME     C
      PRINT *,    '____________________   ________________
 1000 DO 1001 I=1,89
      PRINT *,KNAME (I)
 1001 CONTINUE
      RETURN
      END
```

Table 11

# GEOMAGNETIC CATALOG LIST PROGRAM

```
1  ******************************************************
2  *                                                    *
3  *       PROGRAM:        GEOLIST                      *
4  *       WRITTEN BY:     CARL ABSTON                  *
5  *       DATE:           JANUARY 1985                 *
6  *       LANGUAGE:       FORTRAN-77                   *
7  *       COMPUTER:       CHARLES RIVER MC68000 MICRO  *
8  *                       SYSTEM                       *
9  *       ADDRESS:        WORLD DATA CENTER-A          *
10 *                       CODE E/GC4                   *
11 *                       325 BROADWAY                 *
12 *                       BOULDER, COLORADO            *
13 *                       80303/USA                    *
14 *       PHONE:          303-497-6276                 *
15 ******************************************************
16
17 ******************************************************
18 *                                                    *
19 *      THE PURPOSE OF THIS PROGRAM IS THE FOLLOWING  *
20 *      ------------------------------------------    *
21 *      1)  READ THE CATALOG INVENTORY                *
22 *      2)  READ THE FILE1   INVENTORY                *
23 *      3)  READ THE ANNUAL  DATA BASE                *
24 *      4)  CREATE TABLES 1-7                         *
25 ******************************************************
26
27 ************************************************************
28 *                                                          *
29 *          D A T A   R E C O R D   F O R M A T              *
30 *          ----------------------------------              *
31 *                                                          *
32 *     KOUT CC 1  -  16  = OBSERVATORY NAME                 *
33 *             17 -  19  = OBSERVATORY CODE                 *
34 *             20 -  25  = LATITUDE (+90.00 TO -90.00)      *
35 *             26 -  30  = LONGITUDE (0.00  TO 360.00 EAST)*
36 *             31 -  34  = YEAR (1983)                      *
37 *             35        = K INDICES                        *
38 *             36 -  38  = ELEMENTS (DHZ OR XYZ)            *
39 *             39        = ANNUAL MEANS (A OR SPACE)        *
40 *             40        = Q INDICES                        *
41 *             41 -  46  = NORMAL CENTERS (ABCDEI)          *
42 *             47 -  58  = NORMAL MONTHS (JFMAMJJASOND)     *
43 *             59 -  64  = RAPID RUN CENTERS                *
44 *             65 -  76  = RAPID RUN MONTHS                 *
45 *             77 -  82  = HOURLY ANY CENTERS               *
46 *             83 -  94  = HOURLY ANY MONTHS                *
47 *             95 - 100  = HOURLY DIGITAL CENTERS           *
48 *            101 - 112  = HOURLY DIGITAL MONTHS            *
49 *            113 - 118  = 2.5-MINUTE CENTERS               *
50 *            119 - 130  = 2.5-MINUTE MONTHS                *
51 *            131 - 136  = 1.0-MINUTE CENTERS               *
52 *            137 - 148  = 1.0-MINUTE MONTHS                *
53 *            149 - 154  = 10-SECOND CENTERS                *
54 *            155 - 166  = 10-SECOND MONTHS                 *
55 *            167 - 171  = NORMAL MAGNETOGRAM FILM NUMBER 1*
56 *            172 - 176  = NORMAL MAGNETOGRAM FILM NUMBER 2*
57 *            177 - 181  = RAPID RUN          FILM NUMBER  *
58 *            182 - 186  = STORM              FILM NUMBER  *
59 *            187 - 191  = K INDICES          FILM NUMBER  *
60 *            192 - 196  = HOURLY VALUE       FILM NUMBER  *
61 *            197 - 200  = NOT USED                        *
62 ************************************************************
63
64 ************************************************************
65 *            D A T A   B A S E   D E S I G N               *
66 *            -------------------------------               *
67 *                                                          *
68 *     THE FIRST 34 RECORD POSITIONS ARE RESERVED FOR       *
69 *     INDEXES                                              *
70 *     ALL DATA RECORDS MUST BE IN SEQUENCE BY OBSERVATORY  *
71 *                      NAME AND YEAR                       *
72 *     EACH OBSERVATORY IS SEPARATED BY 5 BLANK RECORDS     *
73 *                                                          *
74 *     THERE ARE 3 SETS OF INDEX RECORDS                    *
75 *     1)  INDEX RECORDS 1-10 = OBSERVATORY POINTERS        *
76 *     2)  INDEX RECORDS 11-20= OBSERVATORY CODES           *
77 *     3)  INDEX RECORDS 21-30= OBSERVATORY BEGIN YEARS     *
78 *         ----------------------------------------         *
79 *         RECORD POSITIONS 31-33 ARE NOT USED              *
80 *         RECORD POSITION  34 = NUMBER OF RECORDS IN FILE  *
81 *                                                          *
82 *     WITH THIS DESIGN                                     *
83 *     ----------------                                     *
84 *     IT IS POSSIBLE TO ADD UP TO FIVE NEW                 *
85 *     YEARS FOR EACH OBSERVATORY WITHOUT PROBLEMS          *
86 *     IT IS POSSIBLE TO ADD MISSING YEARS WITHOUT PROBLEMS*
87 *     IT IS POSSIBLE TO LOCATE ANY OBS-YEAR WITH ONE READ  *
88 *                                                          *
89 *     IT IS NOT POSSIBLE TO ADD MORE THAN 5 YEARS (RECORDS*
90 *     TO THE END OF ANY OBSERVATORY WITHOUT DUMPING AND    *
91 *     RELOADING THE DATA BASE                              *
92 *                                                          *
93 *     NEW OBSERVATORIES                                    *
94 *     -----------------                                    *
95 *     NEW OBSERVATORIES CAN BE ADDED, HOWEVER THEY WILL BE*
96 *     ADDED AT THE END OF THE DATA BASE                    *
97 *     WHEN YOU PRINTOUT THE DATA ALL NEWLY ENTERED OBS     *
98 *     WIL BE OUT OF SEQUENCE                               *
99 *     TO SOLVE THIS PROBLEM, IT IS NECESSARY TO:           *
100*     1) DUMP THE DATA BASE (GEOBASE) USING THE DUMP       *
```

```
*        ROUTINE USING A FILE CALLED SEQ                    *
*     2) SORT THE SEQ DATA BASE USING THE SYSTEM SORT       *
*     3) LOAD THE SEQ DATA BASE USING THE LOAD ROUTINE      *
*************************************************************
*     1)  KCODE=AN ARRAY CONTAINING UP TO 500 (3 DIGIT)     *
*         CODES                                             *
*     2)  KNUM= AN ARRAY CONTAINING UP TO 500 POINTS        *
*               EACH POINTER CORRESPONDS TO THE BEGINNING   *
*               LOCATION OF EACH OBSERVATORY CODE           *
*     3)  K19YR=AN ARRAY CONTAINING THE BEGINNING YEAR      *
*               OF EACH DIFFERENT OBSERVATORY               *
*************************************************************

      INTEGER*4 KNUM,K19YR
      DIMENSION KNUM (500), KOUT1(50),K19YR(500)

      CHARACTER*3 KCOD (500)
      CHARACTER*132  KX1
      CHARACTER*132  KH1
      CHARACTER*132  KH2
      CHARACTER*132  KH3
      CHARACTER*132  KH4
      CHARACTER*132  KH5
      CHARACTER*132  KH6
      CHARACTER*132  KH7

      CHARACTER*132  KF1
      CHARACTER*132  KF2
      CHARACTER*132  KF3
      CHARACTER*132  KF4
      CHARACTER*132  KF5
      CHARACTER*72   KZ
      CHARACTER*132  KSPACE
      CHARACTER*200  KOUT
      CHARACTER*16   KOBS
      CHARACTER*3    KCODE
      CHARACTER*5    KLAT
      CHARACTER*5    KLONG
      CHARACTER*30   PASS
      CHARACTER*1    KPAGE
      CHARACTER*10   KLL
      CHARACTER*4    KYEAR


      KPAGE (1:1) = ''

      KX1(1:27) = '                          '
      KX1(28:28)= '| '
      KX1(29:48)= '                    '
      KX1(49:49)= '| '
      KX1(50:66) = '                 '
      KX1(67:67) = '| '
      KX1(68:88) = '                     '
      KX1(89:89) = '| '
      KX1(90:110) = '                     '
      KX1(111:111)= '| '
      KX1(112:131) = '                    '
      KX1(132:132) = '| '

      KH1(1:7)    = 'TABLE V'
      KH1(8:35)   = '                           '
      KH1(36:61)  = 'CATALOG LISTING OF ANALOG'
      KH1(62:86)  = ' DIGITAL GEOMAGNETIC DATA'

      KH2(1:28)   = '                            '
      KH2(29:46)  = 'WORLD DATA CENTER '
      KH2(47:73)  = 'A=BOULDER B=MOSCOW C=KYOTO '
      KH2(74:106) = 'D=COPENHAGEN E=EDINBURGH I=BOMBAY'

      KH3(1:11)   = 'OBSERVATORY'
      KH3(12:19)  = '        '
      KH3(20:26)  = 'YEAR KA'
      KH3(27:36)  = 'Q         '
      KH3(37:45)  = '  NORMAL'
      KH3(46:54)  = '         '
      KH3(55:65)  = 'RAPID RUN'
      KH3(66:74)  = '         '
      KH3(75:88)  = ' HOURLY VALUES'
      KH3(89:97)  = '         '
      KH3(98:110) = 'HOURLY VALUES'
      KH3(111:118)= '        '
      KH3(119:129)= ' 2.5-MINUTE'

      KH4(1:16)   = '                '
      KH4(17:21)  = 'COMP '
      KH4(22:29)  = '       '
      KH4(29:32)  = ' WDC'
      KH4(33:47)  = '   MAGNETOGRAMS'
      KH4(48:53)  = '  WDC '
      KH4(54:65)  = 'MAGNETOGRAMS'
      KH4(66:74)  = '    WDC  '
      KH4(75:87)  = '  ANY  MEDIUM'
      KH4(88:99)  = '    WDC     '
      KH4(100:112) = 'ON  TAPE     '
      KH4(113:118)= ' WDC  '
      KH4(119:132)= ' 1.0-MINUTE(*)'

      KH5(1:16)   = '----------------'
      KH5(17:34)  = ' - ---- --- ------'
      KH5(35:48)  = ' -------------'
```

```
      KH5(49:53)  = ' ---'
      KH5(54:66)  = '------------'
      KH5(67:74)  = '  ------'
      KH5(75:88)  = ' -------------'
      KH5(90:98)  = '  ------ '
      KH5(99:111) = '-------------'
      KH5(112:117)= '  ----'
      KH5(118:131)= ' -------------'

      KF1(1:7)    = 'TABLE V'
      KF1(8:35)   = '                          '
      KF1(36:61)  = 'CATALOG LISTING OF ANALOG'
      KF1(62:86)  = ' DIGITAL GEOMAGNETIC DATA'
      KF1(87:109) = '  BY MICROFILM NUMBERS '

      KF3(1:11)   = 'OBSERVATORY'
      KF3(12:19)  = '        '
      KF3(20:26)  = 'YEAR KA'
      KF3(27:36)  = 'Q         '
      KF3(37:43)  = 'NORMAL'
      KF3(44:54)  = '          '
      KF3(55:65)  = 'RAPID RUN'
      KF3(66:74)  = '         '
      KF3(75:87)  = 'HOURLY VALUES'
      KF3(88:90)  = '     '
      KF3(91:132) = '**** F I L M   N U M B E R S    ****'


      KF4(1:16)   = '                '
      KF4(17:21)  = 'COMP '
      KF4(22:29)  = '        '
      KF4(29:31)  = 'WDC'
      KF4(33:46)  = '  MAGNETOGRAMS'
      KF4(47:53)  = '   WDC '
      KF4(54:65)  = 'MAGNETOGRAMS'
      KF4(66:74)  = '    WDC  '
      KF4(75:87)  = '  ANY  MEDIUM'
      KF4(88:119) = '    NORM1 NORM2 RAPID STORM HOUR'
      KF4(120:127)= '  K-INDC'

      KF5(1:16)   = '----------------'
      KF5(17:32)  = ' - ---- --- ----'
      KF5(33:46)  = ' ---------------'
      KF5(48:53)  = '  ---'
      KF5(54:65)  = '-------------'
      KF5(66:74)  = '   ------'
      KF5(75:88)  = ' -------------'
      KF5(89:126) = '   ----- ----- ----- ----- ----- -----'


1000  PRINT *,
     -'_____________________________________________________
      PRINT *,
     - '|  WELCOME TO THE GEOMAGNETIC CATALOG LIST SYSTEM  |
      PRINT *,
     - '|          VERSION 2.1 -  APRIL 1. 1985            |
      PRINT *,
     - '|_____________________________________________________|
      KLOOP=0
      K3LOOP=0
*********************************************************
*     OPEN DATA BASE                                    *
*********************************************************
1001  OPEN (20,FILE='GEOBASE',ACCESS='DIRECT',RECL=200,
     -FORM='UNFORMATTED')
1010  PRINT* ,'ENTER 1 = CATALOG   LISTING'
      PRINT* ,'ENTER 2=  FILM      LISTING'
      PRINT* ,'ENTER 3=  10-SECOND LISTING'
      PRINT* ,'ENTER 4=  LIST ALL OBS. FOR A GIVEN YEAR'
      PRINT* ,'ENTER 5=  LIST ALL YEARS FOR A GIVEN OBS'
      PRINT*, 'ENTER 6=  LIST FILE1--
     - GEOMAG MODEL COORDINATES (OBS. SORT)'
      PRINT*, 'ENTER 7=  LIST FILE1--
     - GEOMAG MODEL COORDINATES (CO-LAT SORT)'
      PRINT* ,'ENTER 8=  ALL LISTINGS FOR ANNUAL DATA BASE'
      PRINT *,'ENTER 9=  CATALOG   LISTING FOR ONE OBS'
      PRINT* ,'ENTER E=  END OF LIST ROUTINE    '
      READ (*,10)PASS
10    FORMAT(A)
      IF (PASS(1:1) .EQ. '1') GO TO 2000
      IF (PASS(1:1) .EQ. '2') GO TO 3000
      IF (PASS(1:1) .EQ. '3') GO TO 4000
      IF (PASS(1:1) .EQ. '4') GO TO 5000
      IF (PASS(1:1) .EQ. '5') GO TO 5000
      IF (PASS(1:1) .EQ. '6') GO TO 6000
      IF (PASS(1:1) .EQ. '7') GO TO 6000
      IF (PASS(1:1) .EQ. '8') GO TO 7000
      IF (PASS(1:1) .EQ. '9') GO TO 8000
      IF (PASS(1:1) .EQ. 'E') GO TO 9999
      IF (PASS(1:1) .EQ. 'e') GO TO 9999
      GO TO 1010
*************************************************
*    CATALOG LISTING                            *
*    1) FIRST PRINT LET BEGINNING HEADERS       *
*    2) NEXT PRINT  PAGE          HEADERS       *
*    3) HANDLE RECORDS 1,2, AND 3 DIFFERENTLY   *
*    4) ALL OTHER RECORDS ARE THE SAME          *
```

```
*************************************************
2000  OPEN (19,FILE='GEOPRINT',STATUS='NEW',FORM='FORMATTED'
      PRINT *, 'YOU OUTPUT LISTING IS NAMED GEOPRINT'
2001  INUM=35
      WRITE (19,99) KPAGE
      WRITE (19,100)KH1
      WRITE (19,100)KH2
      WRITE (19,100)KSPACE
      KCOUNT = 3
100   FORMAT (A132)
**************************
*     PRINT PAGE HEADERS  *
**************************
2002  WRITE (19,100)KH3
      WRITE (19,100)KH4
      WRITE (19,100)KH5
      KCOUNT = KCOUNT + 3
      KPCNT = 0
*********************************************************
*     FIRST RECORD                                      *
*                                                       *
*     EACH OBSERVATORY IS SEPARATED BY BLANK RECORDS    *
*********************************************************
*     KOUT CC 1- 16  = OBSERVATORY NAME                 *
*          CC 17-19  = OBSERVATORY CODE                 *
*          CC 21-25  = LATITUDE                         *
*          CC 26-30  = LONGITUTE                        *
*          CC 31-34  = YEAR                             *
*          CC 35     = K INDICES                        *
*          CC 36-38  = ELEMENTS                         *
*          CC 39     = ANNUAL MEANS                     *
*          CC 40     = Q INDICES                        *
*          CC 41-46  = NORMAL CENTERS                   *
*          CC 47-58  = NORMAL MAGNEOTGRAM MONTHS        *
*          CC 59-64  = RAPID RUN CENTERS                *
*          CC 65-76  = RAPID RUN MONTHS                 *
*          CC 77-82  = HOURLY ANY CENTERS               *
*          CC 83-94  = HOURLY ANY MONTHS                *
*          CC 95-100 = HOURLY DIGITAL CENTERS           *
*          CC 101-112= HOURLY DIGITAL MONTHS            *
*          CC 113-118= 2.5-MIN CENTERS                  *
*          CC 119-130= 2.5-MIN MONTHS                   *
*          CC 131-136= 1.0-MIN CENTERS                  *
*          CC 137-148= 1.0-MIN MONTHS                   *
*          CC 149-154= 1.0-SECOND CENTERS               *
*          CC 155-166= 1.0-SECOND MONTHS                *
*          CC 167-171= NORMAL MAGNETOGRAM FILM 1        *
*          CC 172-176= NORMAL MAGNETOGRAM FILM 2        *
*          CC 177-181= RAPID RUN          FILM          *
*          CC 182-186= STORM              FILM          *
*          CC 187-191= K INDICES          FILM          *
*          CC 192-196= HOURLY VALUE       FILM          *
*          CC 197-200= NOT USED                         *
*********************************************************

2004  READ (20,REC=INUM,ERR=9998)KOUT
      INUM = INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 2004
***********************************
*     CONVERT YEAR TO BINARY      *
***********************************
2005  READ (KOUT,FMT='(30X,I4)')LYR
      LYR = LYR + 1
      KOBS(1:16) = KOUT(1:16)
      KLAT(1:5) = KOUT (21:25)
      KLONG(1:5)  = KOUT(26:30)
      KCODE(1:3) = KOUT(17:19)
2006  KH7(1:16) = KOUT (1:16)
      KH7(17:17) = ' '
      KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7 (24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7 (26:27) = KOUT (39:40)
      KH7 (28:28) = '| '
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '| '
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) =  ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '| '
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:90) = '| '
      KH7 (91:96) = KOUT (95:100)
      KH7 (97:97) = ' '
      KH7 (98:103) = KOUT (101:106)
      KH7 (104:104) = ' '
      KH7 (105:110) = KOUT (107:112)
      KH7 (111:112) = '| '
```

```
      KH7 (113:116) = KOUT (113:118)
      KH7 (117:117) = ' '
      KH7 (118:123) = KOUT (119:124)
      KH7 (124:124) = ' '
      KH7 (125:130) = KOUT (125:130)
      KH7 (131:131) = ' '
      KH7 (132:132) = '| '
      IF (KOUT(131:136) .EQ. '      ') GO TO 2007
      KH7(113:116) = KOUT (131:136)
      KH7(117:117) = ' '
      KH7(118:123) = KOUT (137:142)
      KH7(124:124) = ' '
      KH7(125:130) = KOUT (143:148)
      KH7(131:131) = '*'
2007  WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1
      IF (KCOUNT .GT. 54) GO TO 2022


************************************
*     SECOND RECORD                *
************************************
2008  READ (20,REC=INUM,ERR=9998)KOUT
      INUM = INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 2008
      IF (KOUT(1:16) .EQ. KOBS (1:16)) GO TO 2009
      GO TO 2020
2009  READ(KOUT,FMT='(30X,I4)')L
      IF (L .NE. LYR) GO TO 20091
      LYR=L+1
      GO TO 20092
20091 WRITE (19,100)KX1
      KCOUNT = KCOUNT +1
      LYR=L
20092 KH7 (1:3)   = KOUT (17:19)
      KH7 (4:16)  = '
      KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7(24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7(26:27) = KOUT (39:40)
      KH7 (28:28) = '| '
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '| '
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) = ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '| '
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:90) = '| '
      KH7 (91:96) = KOUT (95:100)
      KH7 (97:97) = ' '
      KH7 (98:103) = KOUT (101:106)
      KH7 (104:104) = ' '
      KH7 (105:110) = KOUT (107:112)
      KH7 (111:112) = '| '
      KH7 (113:116) = KOUT (113:118)
      KH7 (117:117) = ' '
      KH7 (118:123) = KOUT (119:124)
      KH7 (124:124) = ' '
      KH7 (125:130) = KOUT (125:130)
      KH7 (131:131) = ' '
      KH7 (132:132) = '| '
      IF (KOUT(131:136) .EQ. '      ') GO TO 20099
      KH7(113:116) = KOUT (131:136)
      KH7(117:117) = ' '
      KH7(118:123) = KOUT (137:142)
      KH7(124:124) = ' '
      KH7(125:130) = KOUT (143:148)
      KH7(131:131) = '*'

20099 WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1
      IF (KCOUNT .GT. 54) GO TO 2023
************************************
*     THIRD RECORD                 *
************************************
2010  READ (20, REC=INUM,ERR=9998)KOUT
      KLL(1:10) =KOUT(21:30)
      INUM = INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 2010
      IF (KOUT (1:16) .NE. KOBS (1:16)) GO TO 2021
      READ (KOUT,FMT='(30X,I4)')L
      IF (L .NE. LYR)GO TO 20102
      LYR=L+1
      GO TO 20101
20102 WRITE (19,100)KX1
      KCOUNT = KCOUNT + 1
      LYR=L+1
```

```
20101 KH7(1:1)   = '('
      KH7 (2:4)  = KOUT (21:23)
      IF (KH7(2:2) .EQ. ' ') KH7(2:2) = '0'
      IF (KH7(3:3) .EQ. ' ') KH7(3:3) = '0'
      IF (KH7(3:3) .EQ. '-') KH7(2:2) = ' '
      KH7 (5:5)  = '.'
      KH7 (6:7)  = KOUT (24:25)
      KH7 (8:8) = ' '
      KH7 (9:11)  = KOUT (26:28)
      KH7 (12:12) = '.'
      KH7 (13:14) = KOUT (29:30)
      KH7 (15:16) = ') '
      KH7(17:17) = ' '
      KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7 (24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7 (26:27) = KOUT (39:40)
      KH7 (28:28) = '| '
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '| '
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) =  ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '| '
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:90) = '| '
      KH7 (91:96) = KOUT (95:100)
      KH7 (97:97) = ' '
      KH7 (98:103) = KOUT (101:106)
      KH7 (104:104) = ' '
      KH7 (105:110) = KOUT (107:112)
      KH7 (111:112) = '| '
      KH7 (113:116) = KOUT (113:118)
      KH7 (117:117) = ' '
      KH7 (118:123) = KOUT (119:124)
      KH7 (124:124) = ' '
      KH7 (125:130) = KOUT (125:130)
      KH7 (131:131) = ' '
      KH7 (132:132) = '| '
      IF (KOUT(131:136) .EQ. '      ') GO TO 2011
      KH7(113:116) = KOUT (131:136)
      KH7(117:117) = ' '
      KH7(118:123) = KOUT (137:142)
      KH7(124:124) = ' '
      KH7(125:130) = KOUT (143:148)
      KH7(131:131) = '*'
2011  WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1
      IF (KCOUNT .GT. 54) GO TO 2050
      KH7(1:16) = '                '
*********************************************
*     REST OF RECORDS                       *
*********************************************
2012  READ (20,REC=INUM,ERR=9998)KOUT
      INUM=INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 2012
      IF (KOUT(1:16) .EQ. KOBS(1:16)) GO TO 2013
      WRITE (19,100)KH5
      GO TO 2005
2013  READ (KOUT,FMT='(30X,I4)')L
      IF (L .NE. LYR) GO TO 20132
      LYR=L+1
      GO TO 20133
20132 WRITE (19,100)KX1
      KCOUNT = KCOUNT + 1
      LYR = L+1
20133 KH7(17:17) = ' '
      IF (KOUT(21:30) .EQ. KLL(1:10)) GO TO 20131
      KLL(1:10) = KOUT (21:30)
      GO TO 20101
20131 KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7(24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7(26:27) = KOUT (39:40)
      KH7 (28:28) = '| '
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '| '
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) =  ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
```

```
      KH7 (67:68) = '| '
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:90) = '| '
      KH7 (91:96) = KOUT (95:100)
      KH7 (97:97) = ' '
      KH7 (98:103) = KOUT (101:106)
      KH7 (104:104) = ' '
      KH7 (105:110) = KOUT (107:112)
      KH7 (111:112) = '| '
      KH7 (113:116) = KOUT (113:118)
      KH7 (117:117) = ' '
      KH7 (118:123) = KOUT (119:124)
      KH7 (124:124) = ' '
      KH7 (125:130) = KOUT (125:130)
      KH7 (131:131) = ' '
      KH7 (132:132) = '| '
      IF (KOUT(131:136) .EQ. '      ') GO TO 2014
      KH7(113:116) = KOUT (131:136)
      KH7(117:117) = ' '
      KH7(118:123) = KOUT (137:142)
      KH7(124:124) = ' '
      KH7(125:130) = KOUT (143:148)
      KH7(131:131) = '*'
2014  WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1
      IF (KCOUNT .GT. 54) GO TO 2050
      GO TO 2012
C*************************************************************
C*    FIRST RECORD WAS PRINTED                               *
C*    BUT NEW OBSERVATORY READ                               *
C*    PADD OUT RECORDS 2 AND 3                               *
C*    AND GO TO BEGIN SEQUENCE AGAIN                         *
C*************************************************************

2020  KSPACE (1:3) = KCODE (1:3)
      WRITE (19,100)KSPACE
      KSPACE(1:1) = '('
      IF (KH7(2:2) .EQ. ' ') KH7(2:2) = '0'
      IF (KH7(3:3) .EQ. ' ') KH7(3:3) = '0'
      IF (KH7(3:3) .EQ. '-') KH7(2:2) = ' '
      KSPACE (2:4)  = KLAT (1:3)
      KSPACE (5:5)  = '.'
      KSPACE (6:7)  = KLAT(4:5)
      KSPACE (8:8) = ' '
      KSPACE (9:11)  = KLONG (1:3)
      KSPACE (12:12) = '.'
      KSPACE (13:14) = KLONG (4:5)
      KSPACE (15:16) = ') '
      KLL(1:10) = KOUT (21:30)
      KSPACE(17:17) = ' '
      WRITE (19,100)KSPACE
      KSPACE (1:16) = '
      WRITE (19,100)KH5
      KCOUNT = KCOUNT + 3
      IF (KCOUNT .GT. 54) GO TO 2050
      GO TO 2005
2021  KSPACE(1:1)   = '('
      KSPACE (2:4)  = KLAT (1:3)
      KSPACE (5:5)  = '.'
      KSPACE (6:7)  = KLAT (4:5)
      KSPACE (8:8) = ' '
      IF (KSPACE(2:2) .EQ. ' ') KSPACE(2:2) = '0'
      IF (KSPACE(3:3) .EQ. ' ') KSPACE(3:3) = '0'
      IF (KSPACE(3:3) .EQ. '-') KSPACE(2:2) = ' '
      KLL(1:10) = KOUT (21:30)
      KSPACE (9:11)  = KLONG (1:3)
      KSPACE (12:12) = '.'
      KSPACE (13:14) = KLONG (4:5)
      KSPACE (15:16) = ') '
      KSPACE(17:17) = ' '
      WRITE (19,100) KSPACE
      KSPACE (1:16) = '
      WRITE (19,100) KH5
      KCOUNT = KCOUNT + 2
      IF (KCOUNT .GT. 54) GO TO 2050
      GO TO 2005

2022  KSPACE (1:3) = KCODE (1:3)
      WRITE (19,100)KSPACE
      KSPACE(1:1)   = '('
      KSPACE (2:4)  = KLAT (1:3)
      KSPACE (5:5)  = '.'
      KSPACE (6:7)  = KLAT(4:5)
      IF (KSPACE(2:2) .EQ. ' ') KSPACE(2:2) = '0'
      IF (KSPACE(3:3) .EQ. ' ') KSPACE(3:3) = '0'
      IF (KSPACE(3:3) .EQ. '-') KSPACE(2:2) = ' '
      KLL(1:10) = KOUT (21:30)
      KSPACE (8:8) = ' '
      KSPACE (9:11)  = KLONG (1:3)
      KSPACE (12:12) = '.'
      KSPACE (13:14) = KLONG (4:5)
      KSPACE (15:16) = ') '
      KSPACE(17:17) = ' '
      WRITE (19,100)KSPACE
      KSPACE (1:16) = '
      WRITE (19,100)KH5
```

```
      KCOUNT = KCOUNT + 3
      IF (KCOUNT .GT. 54) GO TO 2050
      GO TO 2050
2023  KSPACE(1:1)   = '('
      KSPACE (2:4)  = KLAT (1:3)
      KSPACE (5:5)  = '.'
      KSPACE (6:7)  = KLAT (4:5)
      IF (KSPACE(2:2) .EQ. ' ') KSPACE(2:2) = '0'
      IF (KSPACE(3:3) .EQ. ' ') KSPACE(3:3) = '0'
      IF (KSPACE(3:3) .EQ. '-') KSPACE(2:2) = ' '
      KLL(1:10) = KOUT (21:30)
      KSPACE (8:8) = ' '
      KSPACE (9:11)  = KLONG (1:3)
      KSPACE (12:12) = '.'
      KSPACE (13:14) = KLONG (4:5)
      KSPACE (15:16) = ') '
      KSPACE(17:17) = ' '
      WRITE (19,100) KSPACE
      KSPACE (1:16) = '
      WRITE (19,100) KH5
      KCOUNT = KCOUNT + 2
      GO TO 2050

*********************************************
*      NEW PAGE                             *
*********************************************
2050  WRITE (19,99)KPAGE
99    FORMAT (A1)
      WRITE (19,100)KH3
      WRITE (19,100)KH4
      WRITE (19,100)KH5
      KCOUNT = 4
      KPCNT = KPCNT + 1
      IF( KPCNT .NE. 10) GO TO 2004
      KPCNT = 0
      PRINT *, 'CATALOG LISTING IS AT ',KOUT(1:16),' ',
     - KOUT(31:34)
      GO TO 2004



*********************************************************
*                                                       *
*     F I L M  C A T A L O G                            *
*                                                       *
*********************************************************

3000  OPEN (19,FILE='GEOPRINTX',STATUS='NEW',FORM='FORMATTED
      PRINT *, 'OUTPUT FILE IS NAMED  GEOPRINTX'

3001  INUM=35
      WRITE (19,99) KPAGE
      WRITE (19,100)KF1
      WRITE (19,100)KF2
      WRITE (19,100)KSPACE
      KCOUNT = KCOUNT + 3
***************************
*     PRINT PAGE HEADERS  *
***************************
3002  WRITE (19,100)KF3
      WRITE (19,100)KF4
      WRITE (19,100)KF5
      KCOUNT = KCOUNT + 3
      IF (KCOUNT .GT. 54) KCOUNT = 3
*********************************************************
*     FIRST RECORD                                      *
*                                                       *
*     EACH OBSERVATORY IS SEPARATED BY BLANK RECORDS    *
*********************************************************
3004  READ (20,REC=INUM,ERR=9998)KOUT
      INUM = INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 3004
3005  KOBS(1:16) = KOUT(1:16)
      KLAT(1:5) = KOUT (21:25)
      KLONG(1:5)  = KOUT(26:30)
      KCODE(1:3) = KOUT(17:19)
3006  KH7(1:16) = KOUT (1:16)
      KH7(17:17) = ' '
      KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7(24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7 (26:27) = KOUT (39:40)
      KH7 (28:28) = '|'
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '|'
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) =  ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '|'
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
```

```
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:91) = '|| '
      KH7 (92:96) = KOUT (167:171)
      KH7 (97:97) = ' '
      KH7 (98:102) = KOUT (172:176)
      KH7 (103:103) = ' '
      KH7 (104:108) = KOUT (177:181)
      KH7 (109:109) = ' '
      KH7 (110:114) = KOUT (182:186)
      KH7 (115:115) = ' '
      KH7 (116:120) = KOUT (187:191)
      KH7 (121:121) = ' '
      KH7 (122:126) = KOUT (192:196)
      KH7 (131:131) = ' '
      KH7 (132:132) = '| '
3007  WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1
      IF (KCOUNT .GT. 54) GO TO 3022
************************************
*     SECOND RECORD                *
************************************
3008  READ (20,REC=INUM,ERR=9998)KOUT
      INUM = INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 3008
      IF (KOUT(1:16) .EQ. KOBS (1:16)) GO TO 3009
      GO TO 3020
3009  KH7 (1:3)   = KOUT (17:19)
      KH7 (4:16)  = '
      KH7(17:17) = ' '
      KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7(24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7(26:27) = KOUT (39:40)
      KH7 (28:28) = '| '
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '| '
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) =  ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '| '
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:91) = '|| '
      KH7 (92:96) = KOUT (167:171)
      KH7 (97:97) = ' '
      KH7 (98:102) = KOUT (172:176)
      KH7 (103:103) = ' '
      KH7 (104:108) = KOUT (177:181)
      KH7 (109:109) = ' '
      KH7 (110:114) = KOUT (182:186)
      KH7 (115:115) = ' '
      KH7 (116:120) = KOUT (187:191)
      KH7 (121:121) = ' '
      KH7 (122:126) = KOUT (192:196)
      KH7 (131:131) = ' '
      KH7 (132:132) = '| '
30099 WRITE (19,100)kH7
      KCOUNT = KCOUNT + 1
      IF (KCOUNT .GT. 54) GO TO 3023
****************************************
*     THIRD RECORD                     *
****************************************
3010  READ (20,REC=INUM,ERR=9998)KOUT
      INUM = INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 3010
      IF (KOUT (1:16) .NE. KOBS (1:16)) GO TO 3021
      KH7(1:1) = '('
      KH7(2:4) = KOUT (21:23)
      IF (KH7(2:2) .EQ. ' ')KH7(2:2) = '0'
      KH7(5:5) = ' '
      KH7(6:7) = KOUT (24:25)
      KH7(8:8) = ' '
      KH7(9:11) = KOUT (26:28)
      KH7(12:12) = ' '
      KH7(13:14) = KOUT (29:30)
      KH7(15:16) = ')'
      KH7(17:17) = ' '
      KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7(24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7(26:27) = KOUT (39:40)
      KH7 (28:28) = '| '
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
```

```
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '| '
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) =  ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '| '
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:91) = '|| '
      KH7 (92:96) = KOUT (167:171)
      KH7 (97:97) = ' '
      KH7 (98:102) = KOUT (172:176)
      KH7 (103:103) = ' '
      KH7 (104:108) = KOUT (177:181)
      KH7 (109:109) = ' '
      KH7 (110:114) = KOUT (182:186)
      KH7 (115:115) = ' '
      KH7 (116:120) = KOUT (187:191)
      KH7 (121:121) = ' '
      KH7 (122:126) = KOUT (192:196)
      KH7 (131:131) = ' '
      KH7 (132:132) = '| '
3011  WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1
      IF (KCOUNT .GT. 54) GO TO 3050
      KH7(1:16) = '                '
*********************************************
*     REST OF RECORDS                       *
*********************************************
3012  READ (20,REC=INUM,ERR=9998)KOUT
      INUM = INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 3012
      IF (KOUT (1:16) .EQ. KOBS (1:16)) GO TO 3013
      WRITE (19,100)KF5
      GO TO 3005
3013  KH7(17:17) = ' '
      KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7(24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7(26:27) = KOUT (39:40)
      KH7 (28:28) = '| '
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '| '
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) =  ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '| '
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:91) = '|| '
      KH7 (92:96) = KOUT (167:171)
      KH7 (97:97) = ' '
      KH7 (98:102) = KOUT (172:176)
      KH7 (103:103) = ' '
      KH7 (104:108) = KOUT (177:181)
      KH7 (109:109) = ' '
      KH7 (110:114) = KOUT (182:186)
      KH7 (115:115) = ' '
      KH7 (116:120) = KOUT (187:191)
      KH7 (121:121) = ' '
      KH7 (122:126) = KOUT (192:196)
      KH7 (131:131) = ' '
      KH7 (132:132) = '| '
3014  WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1
      IF (KCOUNT .GT. 54) GO TO 3050
      GO TO 3012

*********************************************
*                                           *
*********************************************
3020  KSPACE (1:3) = KCODE (1:3)
      WRITE (19,100)KSPACE
      KSPACE(1:1)   = '('
      KSPACE (2:4)  = KLAT (1:3)
      KSPACE (5:5)  = '.'
      KSPACE (6:7)  = KLAT(4:5)
      KSPACE (8:8) = ' '
      KSPACE (9:11)  = KLONG (1:3)
      KSPACE (12:12) = '.'
      KSPACE (13:14) = KLONG (4:5)
      KSPACE (15:16) = ') '
      KSPACE(17:17) = ' '
      WRITE (19,100)KSPACE
```

```
      KSPACE (1:16) = '
      WRITE (19,100)KF5
      KCOUNT = KCOUNT + 3
      IF (KCOUNT .GT. 55) GO TO 3050
      GO TO 3005
3021  KSPACE(1:1)   = '('
      KSPACE (2:4)  = KLAT (1:3)
      KSPACE (5:5)  = '.'
      KSPACE (6:7)  = KLAT (4:5)
      KSPACE (8:8) = ' '
      KSPACE (9:11)  = KLONG (1:3)
      KSPACE (12:12) = '.'
      KSPACE (13:14) = KLONG (4:5)
      KSPACE (15:16) = ') '
      KSPACE(17:17) = ' '
      WRITE (19,100) KSPACE
      KSPACE (1:16) = '
      WRITE (19,100) KF5
      KCOUNT = KCOUNT + 2
      GO TO 3005

3022  KSPACE (1:3) = KCODE (1:3)
      WRITE (19,100)KSPACE
      KSPACE(1:1)   = '('
      KSPACE (2:4)  = KLAT (1:3)
      KSPACE (5:5)  = '.'
      KSPACE (6:7)  = KLAT(4:5)
      KSPACE (8:8) = ' '
      KSPACE (9:11)  = KLONG (1:3)
      KSPACE (12:12) = '.'
      KSPACE (13:14) = KLONG (4:5)
      KSPACE (15:16) = ') '
      KSPACE(17:17) = ' '
      WRITE (19,100)KSPACE
      KSPACE (1:16) = '
      WRITE (19,100)KF5
      KCOUNT = KCOUNT + 3
      GO TO 3050
3023  KSPACE(1:1)   = '('
      KSPACE (2:4)  = KLAT (1:3)
      KSPACE (5:5)  = '.'
      KSPACE (6:7)  = KLAT (4:5)
      KSPACE (8:8) = ' '
      KSPACE (9:11)  = KLONG (1:3)
      KSPACE (12:12) = '.'
      KSPACE (13:14) = KLONG (4:5)
      KSPACE (15:16) = ') '
      KSPACE(17:17) = ' '
      WRITE (19,100) KSPACE
      KSPACE (1:16) = '
      WRITE (19,100) KF5
      KCOUNT = KCOUNT + 2
      GO TO 3050

*********************************************
*      NEW PAGE                             *
*********************************************
3050  WRITE (19,99)KPAGE
      WRITE (19,100)KF3
      WRITE (19,100)KF4
      WRITE (19,100)KF5
      KCOUNT = 3
      GO TO 3004
4000  K3LOOP=K3LOOP+1
      PASS (1:1) = '0'
      IF (K3LOOP .NE. 1) PASS(1:1) ='1'
4001  CALL GEOSB1 (PASS)
      GO TO 1010

*********************************************************
*                                                       *
*     SCANNING                                          *
*                                                       *
*********************************************************
5000  PASS(2:2) = '1'
      IF (KLOOP .EQ. 0) PASS(2:2) = '0'
      CALL GEOSUB (PASS)
      GO TO 1010
*********************************************************
*     LIST GEOMAGNETIC MODEL COORDINATES                *
*********************************************************
6000  PASS(2:2) = '1'
      IF (KLOOP .EQ. 0) PASS(2:2) = '0'

      CALL GEOSB2 (PASS)
      GO TO 1010

*********************************************************
*     LIST GEOMAGNETIC ANNUAL DATA BASE                 *
*********************************************************
7000  CALL GEOANN (PASS)
      GO TO 1010
*********************************************************
*     CATALOG LISTING FOR ONE OBSERVATORY               *
*********************************************************
8000  CALL GE01SB (PASS)

9998  WRITE (19,100)KH5
      WRITE (19,99)KPAGE
9999  PRINT *, 'END OF LISTING SYSTEM'
      END
```

```
      SUBROUTINE GEOSUB (PASS)
*************************************************************
*     SUBROUTINE                                            *
*************************************************************

      INTEGER*4 KNUM,K19YR
      DIMENSION KNUM (500), KOUT1(50),K19YR(500)
      CHARACTER*3 KCOD (500)
      CHARACTER*71 KS1
      CHARACTER*71 KS2
      CHARACTER*71 KS3
      CHARACTER*71 KS4
      CHARACTER*71 KS5
      CHARACTER*71 KS6
      CHARACTER*71 KZ
      CHARACTER*30  PASS
      CHARACTER*200 KOUT
      CHARACTER*3   ICOD
      CHARACTER*10  KYEAR
1000  PRINT *,PASS(1:2)
      IF (PASS(2:2) .NE. '0') GO TO 5004

      KS1 (1:17)  = 'OBSERVATORY      '
      KS1 (18:20) = 'COD '
      KS1 (21:25) = ' KAQ '
      KS1 (26:40) = '|  NORMAL MONTHS'
      KS1 (41:55) = '|   RAPID RUN   '
      KS1 (56:71) = '|   HOURLY ANY  |'

      KS2 (1:17) = '---------------- '
      KS2 (18:25) = '--- ---  '
      KS2 (26:54) = '  -------------  ------------'
      KS2 (55:71) = '  ------------ '

      KS4 (1:17)  = 'OBSERVATORY      '
      KS4 (18:20) = 'COD '
      KS4 (21:25) = ' KAQ '
      KS4 (26:40) = '| HOURLY DIGITAL'
      KS4 (41:55) = '|   2.5-MINUTE  '
      KS4 (56:71) = '|   1.0-MINUTE  |'

      KS5 (1:17)  = 'OBSERVATORY      '
      KS5 (18:20) = 'COD '
      KS5 (21:25) = ' KAQ '
      KS5 (26:28) = '    '
      KS5 (29:34) = 'NORM1 '
      KS5 (35:40) = 'NORM2 '
      KS5 (41:46) = 'RAPID '
      KS5 (47:52) = 'STORM '

      KS5 (53:58) = 'HOUR  '
      KS5 (59:68) = 'Q-INDICES'

      KS6 (1:17) = '---------------- '
      KS6 (18:26) = '--- ---  '
      KS6 (27:57) = '  ----- ----- ----- ----- ------'
      KS6 (58:71) = ' ------------ '
*************************************************************
*                                                           *
*     LIST OUT ALL OBSERVATORIES FOR A GIVEN YEAR           *
*                                                           *
*************************************************************

*********************************
*     LOAD INDEXES              *
*********************************
5080  INUM = 1
      J= 1
5081  READ (20,REC=INUM)KOUT1
      DO 5082 I=1,50
      KNUM (J) = KOUT1 (I)
      J=J+1
5082  CONTINUE
      INUM = INUM + 1
      IF (INUM .GT. 10) GO TO 5083
      GO TO 5081

5083  INUM = 11
      I1 = 1
      I2 = 3
      I3 = 1
5084  READ (20,REC=INUM)KOUT
      DO 5085 I=1,50
      KCOD (I3) = KOUT (I1:I2)
      I1 = I1 + 3
      I2 = I2 + 3
      I3 = I3 + 1
5085  CONTINUE
      INUM = INUM + 1
      IF (INUM .GT. 20) GO TO 5086
      I1 = 1
      I2 = 3
      GO TO 5084

5086  INUM=21
      J=1
5087  READ (20,REC=INUM)KOUT1
      DO 5088  I = 1,50
      K19YR (J) = KOUT1 (I)
      J= J+1
5088  CONTINUE
      INUM = INUM + 1
      IF (INUM .GT. 30) GO TO 5001
```

```
      GO TO 5087

*************************************************
*     ALL INDEXES ARE LOADED                    *
*************************************************
5001  OPEN (19,FILE='GEOPRINTA',STATUS='NEW',
     - FORM='FORMATTED')
5004  IF (PASS(1:1) .EQ. '5') GO TO 6000
      PRINT *,'WELCOME TO SELECT BY YEAR ROUTINE'

5003  PRINT *,'ENTER YEAR (LIKE 1980) OR END'
10    FORMAT (A)
      READ (*,10)KYEAR
      IF (KYEAR (1:1) .EQ. 'E') GO TO 5011
      IF (KYEAR(1:1) .NE. '1')GO TO 5001
      READ (KYEAR,FMT='(I4)')L
      PRINT *,L
      J=1
      PRINT *, 'ENTER 1 = ANALOG  LISTING'
      PRINT *, 'ENTER 2 = DIGITAL LISTING'
      PRINT *, 'ENTER 3 = FILM    LISTING'
      READ (*,10)PASS
      IF (PASS(1:1) .EQ. '2') GO TO 5020
      IF (PASS(1:1) .EQ. '3') GO TO 5030
      KS3(1:20) = '                   '
      KS3(21:33) ='             '
      KS3(34:41) = '________'
      PRINT *,KS3
      WRITE (19,101)KS3
      KS3(34:35) = '| '
      KS3(36:39) = KYEAR(1:4)
      KS3(40:41) =' |'
      PRINT *,KS3
      WRITE (19,101)KS3
      KS3(34:41) = '--------'
      PRINT *,KS3
      WRITE (19,101)KS3

      PRINT *,KS1
      PRINT *,KS2
      WRITE (19,101)KS1
      WRITE (19,101)KS2
101   FORMAT (A71)
*************************************************
*     CALCULATE LOCATIONS OF EACH OBS-YEAR      *
*************************************************

50016 INUM = KNUM (J) + (L - K19YR (J))
      READ (20,REC=INUM,ERR=5010)KOUT
      J=J+1
      IF (J .GT. 500) GO TO 5010
      IF (KOUT(1:5) .EQ. '     ') GO TO 50016
      IF (KYEAR(1:4) .EQ. KOUT(31:34)) GO TO 5002
      GO TO 50016
5002  KS3(1:16)  = KOUT (1:16)
      KS3(17:17) = ' '
      KS3(18:20) = KOUT (17:19)
      KS3(21:21) = ' '
      KS3(22:22) = KOUT (35:35)
      KS3(23:24) = KOUT (39:40)
      KS3(25:26) = '|| '
      KS3(27:27) = KOUT (41:41)
      KS3(28:28) = ' '
      KS3(29:40) = KOUT (47:58)
      KS3(41:41) = '| '
      KS3(42:42) = KOUT (59:59)
      KS3(43:43) = ' '
      KS3(44:55) = KOUT(65:76)
      KS3(56:56) = '| '
      KS3(57:57) = KOUT (77:77)
      KS3(58:58) = ' '
      KS3(59:70) = KOUT(83:94)
      KS3(71:71) = '| '
      PRINT *,KS3
      WRITE (19,101)KS3
      GO TO 50016
5010  GO TO 5003
5011  PRINT *,'YOUR LISTING IS ON FILE GEOPRINTA'
      GO TO 9999
5020  KS3(1:34) = '
      KS3(34:41) = '________'
      PRINT *,KS3
      WRITE (19,101)KS3
      KS3(34:35) = '| '
      KS3(36:39) = KYEAR(1:4)
      KS3(40:41) =' |'
      PRINT *,KS3
      WRITE (19,101)KS3
      KS3(34:41) = '--------'
      PRINT *,KS3
      WRITE (19,101)KS3

      PRINT *,KS4
      PRINT *,KS2
      WRITE (19,101)KS4
      WRITE (19,101)KS2
5021  INUM = KNUM (J) + (L - K19YR (J))
      READ (20,REC=INUM,ERR=5010)KOUT
      J=J+1
      IF (J .GT. 500) GO TO 5010
```

```
      IF (KOUT(1:5) .EQ. '     ') GO TO 5021
      IF (KYEAR(1:4) .EQ. KOUT(31:34)) GO TO 5022
      GO TO 5021
5022  KS3(1:16)  = KOUT (1:16)
      KS3(17:17) = ' '
      KS3(18:20) = KOUT (17:19)
      KS3(21:21) = ' '
      KS3(22:22) = KOUT (35:35)
      KS3(23:24) = KOUT (39:40)
      KS3(25:26) = '|| '
      KS3(27:27) = KOUT (95:95)
      KS3(28:28) = ' '
      KS3(29:40) = KOUT (101:112)
      KS3(41:41) = '| '
      KS3(42:42) = KOUT (113:113)
      KS3(43:43) = ' '
      KS3(44:55) = KOUT (119:130)
      KS3(56:56) = '| '
      KS3(57:57) = KOUT (131:131)
      KS3(58:58) = ' '
      KS3(59:70) = KOUT(137:148)
      KS3(71:71) = '| '
      PRINT *,KS3
      WRITE (19,101)KS3
      GO TO 5021
*****************************************
*     FILM                              *
*****************************************
5030  KS3(1:20) = '                    '
      KS3(21:33) = '            '
      KS3(34:41) = '________'
      PRINT *,KS3
      WRITE (19,101)KS3
      KS3(34:35) = '| '
      KS3(36:39) = KYEAR(1:4)
      KS3(40:41) =' | '
      PRINT *,KS3
      WRITE (19,101)KS3
      KS3(34:41) = '--------'
      PRINT *,KS3
      WRITE (19,101)KS3

      PRINT *,KS5
      PRINT *,KS6
      WRITE (19,101)KS5
      WRITE (19,101)KS6
5031  INUM = KNUM (J) + (L - K19YR (J))
      READ (20,REC=INUM,ERR=5010)KOUT
      J=J+1
      IF (KOUT(1:5) .EQ. '     ') GO TO 5031
      IF (J .GT. 500) GO TO 5010
      IF (KYEAR(1:4) .EQ. KOUT(31:34)) GO TO 5032
      GO TO 5031
5032  KS3(1:16)  = KOUT (1:16)
      KS3(17:17) = ' '
      KS3(18:20) = KOUT (17:19)
      KS3(21:21) = ' '
      KS3(22:22) = KOUT (35:35)
      KS3(23:23) = ' '
      KS3(24:25) = KOUT (39:40)
      KS3(26:29) = ' || '
      KS3(30:34) = KOUT(167:171)
      KS3(35:35) = ' '
      KS3(36:40) = KOUT(172:176)
      KS3(41:41) = ' '
      KS3(42:46) = KOUT(177:181)
      KS3(47:47) = ' '
      KS3(48:52) = KOUT(182:186)
      KS3(53:53) = ' '
      KS3(54:58) = KOUT(187:191)
      KS3(59:59) = ' '
      KS3(60:64) = KOUT (192:196)
      WRITE (19,101)KS3
      PRINT *,KS3
      GO TO 5031
*************************************************************
*                                                           *
*     LISTOUT ARE YEARS OF DATA FOR A GIVEN OBSERVATORY     *
*                                                           *
*************************************************************

6000  PRINT *,'WELCOME TO SELECT BY OBSERVATORY'
6001  PRINT *, 'ENTER OBSERVATORY CODE--(LIKE IRT)'
      READ (*,10)ICOD
      J=1
      DO 6080 I=1,500
      IF (ICOD (1:3) .EQ. KCOD (I)) GO TO 6081
      J=J+1
6080  CONTINUE
      PRINT *, 'NO SUCH OBSERVATORY--TRY AGAIN'
      GO TO 9999

6081  INUM =KNUM (J)
      PRINT *, 'LOCATION OF FIRST RECORD IN OBS = ', INUM
      READ (20,REC=INUM,ERR=9999)KOUT
      KZ (1:29) = '_____________________________'
      KZ (30:54)= '_________________________'
      PRINT *,KZ
      WRITE (19,101)KZ
      KZ(1:16) = '| OBSERVATORY = '
```

```
      KZ(17:32)= KOUT (1:16)
      KZ(33:40)= ' CODE = '
      KZ(41:43)= KOUT(17:19)
      KZ(44:54)= '          | '
      PRINT *,KZ
      WRITE (19,101)KZ

      KZ(1:29) = '|                 ____________'
      KZ(30:55)= '_          ___          |'
      PRINT *,KZ
      WRITE (19,101)KZ

      KZ(1:29) = '| LATITUDE =                 '
      KZ(30:54)= '                            | '
      KZ (13:15) = KOUT (21:23)
      KZ (16:16) = '.'
      KZ (17:18) = KOUT (24:25)
      KZ (19:24) = ' NORTH'
      IF (KOUT(21:21) .EQ. '-') KZ(18:23) = 'SOUTH'
      IF (KOUT(22:22) .EQ. '-') KZ(18:23) = 'SOUTH'
      KZ (30:41) = 'LONGITUDE = '
      KZ (42:44) = KOUT (26:28)
      KZ (45:45) = '.'
      KZ (46:47) = KOUT (29:39)
      KZ (48:55) = ' EAST | '
      PRINT *,KZ
      WRITE (19,101)KZ

      KZ (1:29) ='| ____________________________'
      KZ(30:54) ='____________________________|'
      PRINT *,KZ
      WRITE (19,101)KZ
      PRINT *, ' '
      KZ(1:40) ='YEAR  KAQ   MAGNETOGRAMS    HV-ANY      '
      KZ(41:65) = '  HV DIGITAL   2.5-MINUTE'
      PRINT *,KZ
      WRITE (19,101)KZ

      KZ(1:30) = '                                '
      KZ(31:54) = '                          '
      KZ(55:68) = '1.0-MINUTE(*)'
      PRINT *,KZ
      WRITE (19,101)KZ

      KZ(1:40) = '___ ___   ___________ ___________'
      KZ(41:68)= '  ____________________'
      PRINT *,KZ
      WRITE (19,101)KZ
      GO TO 6003

 6002 READ (20,REC=INUM,ERR=9999)KOUT
      IF (KOUT(31:34) .EQ. '    ') GO TO 9999
 6003 KZ(55:66) = KOUT(119:130)
      KZ(67:67)= ' '
      IF (KOUT(137:148) .NE. '            ')
     - KZ(55:66) = KOUT (137:148)
      IF (KOUT(137:148) .NE. '            ')
     - KZ(67:67) ='*'
      KZ(1:4) = KOUT (31:34)
      KZ (5:6) = '  '
      KZ (7:7) = KOUT(35:35)
      KZ (8:8) = KOUT (39:40)
      KZ (9:12) = '    '
      KZ (13:24) = KOUT (47:58)
      KZ (25:26) = ' '
      KZ (27:38) = KOUT (83:94)
      KZ (39:40) =  '  '
      KZ (41:52) = KOUT (101:112)
      KZ (53:54) = '  '
      PRINT *,KZ
      WRITE (19,101)KZ

      INUM= INUM + 1
      GO TO 6002

 9999 RETURN
      END
```

```
      SUBROUTINE GEOSB1 (PASS)
*************************************************************
*                                                           *
*     10-SECOND TYPE CATALOG LISTING                        *
*                                                           *
*************************************************************


      CHARACTER*132 KSPACE
      CHARACTER*200 KOUT
      CHARACTER*132 KTEMP
      CHARACTER*132 KH1
      CHARACTER*132 KH2
      CHARACTER*132 KH3
      CHARACTER*30  PASS
      CHARACTER*3   KCODE
      CHARACTER*3   KCODE2
      CHARACTER*1   KPAGE

      KPAGE (1:1) = ''
      KH1 (1:8) = 'TABLE VI'
      KH1 (9:35) = '                           '
      KH1 (36:71) = 'HIGH-RESOLUTION GEOMAGNETIC DIGITAL '
      KH1 (72:75) = 'DATA'

      KH2 (1:16) = 'OBSERVATORY     '
      KH2 (17:21) = ' CODE'
      KH2 (22:49) = '   YEAR  WDC   10-SECOND DATA'
      KH2 (50:61) = '           '
      KH2 (62:90) = 'OBSERVATORY      CODE  YEAR'
      KH2 (91:110) = ' WDC   10-SECOND DATA'

      KH3 (1:17) = '----------------- '
      KH3 (18:52) = '----  ----  ---   ------  ------'
      KH3 (53:61) = '          '
      KH3 (62:97) = '----------------- ----  ----  ---  '
      KH3 (98:110)= '--- ---  ------'

      KSPACE(1:30)   = '                              '
      KSPACE(31:60)  = '                              '
      KSPACE(61:90)  = '                              '
      KSPACE(91:120) = '                              '
      KSPACE(121:132)= '            '
      PRINT *,
     -'------------------------------------------------------'
      PRINT *,
     -'|     WELCOME TO 10-SECOND CATALOG LISTING          |'
      PRINT *,
     -'|                                                    |'
      PRINT *,
     -'|     THIS ROUTINE PERFORMS TWO FUNCTIONS            |'
      PRINT *,
     -'| 1)   THE MASTER DATA BASE IS SEARCHED AND A        |'
      PRINT *,
     -'|     FILE IS CREATED CONTAINING 10-SECOND DATA      |'
      PRINT *,
     -'|                                                    |'
      PRINT *,
     -'| 2)   A 10-SECOND LISTING IS CREATED FROM THE       |'
      PRINT *,
     -'|     NEW DATA BASE                                  |'
      PRINT *,
     -'|                                                    |'
      PRINT *,
     -'|     THE NEW DATA BASE IS SAVED AND MAYBE USED      |'
      PRINT *,
     -'|     PRODUCE ADDITIONAL LISTINGS                    |'
      PRINT *,
     -'|                                                    |'
      PRINT *,
     -'| 3)   THE LISTING FILE IS NAMED GEOPRINTC           |'
      PRINT *,
     -'|____________________________________________________|'

      PRINT *,'DO YOU HAVE A 10-SECOND DATA BASE--
     - ENTER Y/N'
      READ (*,10)PASS
10    FORMAT (A)

1000  INUM=35
      J=1

      IF (PASS(1:1) .EQ. '1') GO TO 10001
      OPEN (25,FILE='GEOTEMP',ACCESS='DIRECT',RECL=200,
     -FORM='UNFORMATTED')
10001 IF (PASS(1:1) .EQ. 'Y') GO TO 2001
*************************************************************
*     READ ALL RECORDS IN MAIN DATA BASE-SECOND DATA        *
*     SELECT ONLY RECORDS WHICH HAVE 10 SECOND DATA         *
*     SEPARATE OBSERVATORIES WITH A BLANK RECORD            *
*************************************************************
1001  READ (20,REC=INUM,ERR=2000)KOUT
      INUM = INUM+1
      IF (KOUT(149:149) .NE. 'A') GO TO 1001

1002  IF (J .EQ. 1) KCODE (1:3) = KOUT(17:19)
      IF(KCODE (1:3) .EQ. KOUT(17:19))GO TO 1003
      KSPACE(17:19) = KCODE(1:3)
      KSPACE(1:5) = '     '
      WRITE (25,REC=J)KSPACE
```

```
      J=J+1
      KCODE(1:3) = KOUT(17:19)
1003  WRITE (25,REC=J)KOUT
      J=J+1
      GO TO 1001
*************************************************************
*     ALL DATA HAS BEEN SELECTED                            *
*     BUILD A PAGE WITH TWO COLUMNS                         *
*************************************************************
2000  PRINT *,'ALL 10-SECOND HAS BEEN SELECTED'
      PRINT *,'NUMBER OF RECORDS = ', J
2001  OPEN (26,FILE='GEOPRINTC',STATUS='NEW',
     -FORM='FORMATTED')
*************************************************************
*     FIND BEGINNING OF AN OBSERVATORY ONE PAGE DOWN        *
*     FOR THE SECOND COLUMN                                 *
*************************************************************
      J=1
      K=40
4000  READ (25,REC=K)KOUT
      K=K+1
      PRINT *,K,' ',KOUT(1:35)
      IF (KOUT(1:5) .EQ. '     ') GO TO 4002

      GO TO 4000
4002  WRITE (26,100)KPAGE
      WRITE (26,100)KH1
      WRITE (26,100)KSPACE
      WRITE (26,100)KH2
      WRITE (26,100)KH3
      WRITE (26,100)KSPACE
      KHOLD = K
      PRINT *,'SECOND DATA COLUMN BEGINS AT POSITION = ',K
100   FORMAT (A132)

*************************************************************
*     FIRST HALF OF PAGE
*************************************************************
2002  IF (J .GE. KHOLD) GO TO 2050
      READ (25,REC=J,ERR=9999)KOUT
      J=J+1
      KTEMP(1:49) = '
      IF (KOUT(17:19) .EQ. KCODE(1:3)) GO TO 2003
      KTEMP(1:16) = KOUT(1:16)
      KTEMP(17:18) = '  '
      KTEMP(19:21) = KOUT(17:19)
      KTEMP (22:23) = '  '
      KCODE(1:3) = KOUT(17:19)
2003  IF (KOUT(1:5) .EQ. '     ') GO TO 2004
      KTEMP (24:27) = KOUT (31:34)
      KTEMP (28:29) = '  '
      KTEMP (30:35) = KOUT (149:154)
      KTEMP (36:41) = KOUT (155:160)
      KTEMP (42:43) = '  '
      KTEMP (44:49) = KOUT (161:166)
*************************************************************
*     SECOND HALF OF PAGE                                   *
*************************************************************
2004  READ (25,REC=K,ERR=3000)KOUT
      K=K+1
      KTEMP(50:82) = '
      IF (KOUT(17:19) .EQ. KCODE2(1:3)) GO TO 2005
      KTEMP (62:77) = KOUT(1:16)
      KTEMP (78:79) = '  '
      KTEMP (80:82) = KOUT(17:19)
      KTEMP (84:85) = '  '
      KCODE2(1:3)   = KOUT(17:19)

2005  KTEMP (86:89)  = KOUT (31:34)
      KTEMP (90:91)  = '  '
      KTEMP (92:97)  = KOUT (149:154)
      KTEMP (98:103) = KOUT (155:160)
      KTEMP (104:105)= '  '
      KTEMP (106:111)= KOUT (161:166)

      WRITE (26,100)KTEMP
      GO TO 2002
*************************************************************
*     END OF A PAGE                                         *
*************************************************************
2050  KTEMP(1:30) = '                              '
      KTEMP(31:49)= '                   '
2051  READ (25,REC=K,ERR=9999)KOUT
      K=K+1
      KTEMP(50:61) = '           '
      KTEMP(62:77) = '                '
      KTEMP(78:82) = '     '
      IF (KOUT(17:19) .EQ. KCODE2(1:3)) GO TO 2052
      J=K
      K=K+40
      PRINT *,'J = ',J
      PRINT *,'K = ',K
      READ (25,REC=J)KOUT
      PRINT *,KOUT
      J= J-1
      READ (25,REC=J)KOUT
      PRINT *,KOUT
      GO TO 4000

2052  KTEMP (86:89)  = KOUT (31:34)
```

```
1684       KTEMP (90:91)  = '  '
1685       KTEMP (92:97)  = KOUT (149:154)
1686       KTEMP (98:103) = KOUT (155:160)
1687       KTEMP (104:105)= '  '
1688       KTEMP (106:111)= KOUT (161:166)
1689
1690       WRITE (26,100)KTEMP
1691       GO TO 2002
1692 ************************************************************
1693 *     END OF GEOTEMP FILE                                  *
1694 *     NO ADDITIONAL SECOND COLUMNS                         *
1695 ************************************************************
1696 3000  KTEMP(50:82) = '                                      '
1697       KTEMP(83:113) = '                                     '
1698
1699       WRITE(26,100)KTEMP
1700 3001  IF (J .GE. KHOLD) GO TO 9999
1701       READ (25,REC=J,ERR=9999)KOUT
1702       J=J+1
1703       KTEMP(1:30) = '                              '
1704       KTEMP(31:49)= '                 '
1705       IF (KOUT(17:19) .EQ. KCODE(1:3)) GO TO 3003
1706       KTEMP(1:16) = KOUT(1:16)
1707       KTEMP(17:18) = '  '
1708       KTEMP(19:21) = KOUT(17:19)
1709       KTEMP (22:23) = '  '
1710       KCODE(1:3) = KOUT(17:19)
1711 3003  IF (KOUT(1:5) .EQ. '     ') GO TO 3004
1712       KTEMP (24:27) = KOUT (31:34)
1713       KTEMP (28:29) = '  '
1714       KTEMP (30:35) = KOUT (149:154)
1715       KTEMP (36:41) = KOUT (155:160)
1716       KTEMP (42:43) = '  '
1717       KTEMP (44:49) = KOUT (161:166)
1718 3004  WRITE (26,100)KTEMP
1719       GO TO 3001
1720
1721 9999  PRINT *, 'THE LISTING IS ON FILE    GEOPRINTC'
1722       RETURN
1723       END
1724
```

```
      SUBROUTINE GEOSB2 (PASS)

*********************************************
*     LISTS TABLE 1 AND TABLE 2             *
*********************************************
*     FILE1 FORMAT                          *
*********************************************
*     CC 1-16  OBSERVATORY NAME             *
*       17     BLANK                        *
*       18-20  CODE                         *
*       21-26  GEOGRAPHIC LATITUDE          *
*       27-32  GEOGRAPHIC LONGITUDE         *
*       33-38  GEOGRAPHIC CO-LATITUE        *
*       39     BLANK                        *
*       40-45  DIPOLE CO-LATITUDE           *
*       46-51  DIPOLE LONGITUDE             *
*       52     BLANK                        *
*       53-58  GUSTAFFSSON CO-LATITUTE      *
*       59-64  GUSTAFFSSON LONGITUDE        *
*       65     BLANK                        *
*       66-71  TSYGANENKO CO-LATITUDE       *
*       72-77  TSYGANENKO LONGITUDE         *
*       78     BLANK                        *
*       79-84  OBSERVED YEAR (1966.5)       *
*       85-90  D OBSERVED                   *
*       91-96  H OBSERVED                   *
*       97-102 Z OBSERVED                   *
*      103-108 X OBSERVED                   *
*      109-114 Y OBSERVED                   *
*      115-117 OBSERVED ELEMENTS            *
*      118     BLANK                        *
*      119-124 CALCULATED YEAR (1980.5)     *
*      125-130 D CALCULATED                 *
*      131-136 H CALCULATED                 *
*      137-142 Z CALCULATED                 *
*      143-148 X CALCULATED                 *
*      149-154 Y CALCULATED                 *
*      155-160 BLANK                        *
*********************************************

      CHARACTER*10  PASS
      CHARACTER*160 KOUT
      CHARACTER*132 KH1
      CHARACTER*132 KH11
      CHARACTER*132 KH12
      CHARACTER*132 KH2
      CHARACTER*132 KH22
      CHARACTER*132 KH3
      CHARACTER*132 KH4
      CHARACTER*132 KH5
      CHARACTER*132 KH6
      CHARACTER*132 KH7
      CHARACTER*132 KH8
      CHARACTER*132 KSPACE
      CHARACTER*10  KL
      CHARACTER*1   KNPAGE


      KNPAGE (1:1) = ''

      KSPACE(1:30)   = '                              '
      KSPACE(31:60)  = '                              '
      KSPACE(61:90)  = '                              '
      KSPACE(91:120) = '                              '
      KSPACE (121:132) = '            '

      KH1(1:7) = 'TABLE 1'
      KH1(8:30) = '                      '
      KH1(31:50)= '                  '
      KH1(51:86) = 'GEOMAGNETIC OBSERVATORY TABLE'

      KH11(1:40) = '                                        '
      KH11(41:70) = '                       FOR'
      KH12(1:40) = '                                        '
      KH12(41:70) = '                     1  9  8  0'
      KH2(1:32) = '(SEQUENCED BY OBSERVATORY NAME)'

      KH22(1:32) = '(ALL VALUES AS OF 1980.5)'

      KH3(1:20) = '                    '
      KH3(21:46) = '  G E O G R A P H I C   '
      KH3(47:87) = '     G E O M A G N E T I C  M O D E L S
      KH3 (88:120) = '              A N N U A L  V A '
      KH3 (121:130)= 'L U E S'


      KH4(1:24) = '                        '
      KH4(25:49) = '  COORDINATES           '
      KH4(50:79) = ' DIPOLE       GUSTAFFSSON     '
      KH4(80:109) = 'TSYGANENKO          OBSERVED  '
      KH4(110:131)= 'OR  IGRF CALCULATED(*)    '

      KH5(1:29) = 'OBSERVATORY      CODE  LAT  E'
      KH5(30:42)= ' LONG CO-LAT '
      KH5(43:79) = '   CO-LAT E LONG   CO-LAT E LONG   CO'
      KH5(80:91) = '-LAT E LONG '
      KH5(92:131) = '       D      H      Z      X      Y '
      KH6(1:38) = '--------------- ---- ------------ ---'
      KH6(39:53)= '---    --------'
```

```
      KH6(54:91) = '-----  --------------   -------------'
      KH6(92:130) = '      -----  -----  -----  -----  -----
      KH8(1:20) = '                    '
      KH8(21:43) = '  -------------------  '
      KH8(44:80) = '  ---------------------------------'
      KH8(81:94) = ' -----------    '
      KH8(95:97) = '   '
      KH8(98:130) = '---------------------------------'
      KLOOP = 0
      KPAGE = 0

      PRINT *,'WELCOME TO FILE-1 LISTING'

1000  INUM=1
      IF (PASS(1:1) .EQ. '7')GO TO 10002
      OPEN (25,FILE='GEOFILE1',ACCESS='DIRECT',RECL=160,
     -FORM='UNFORMATTED')
      KH1(1:8) = 'TABLE 1'
      KH2(1:32)='(SEQUENCED BY OBSERVATORY NAME)'
      OPEN (26,FILE='GEOPRINTD',STATUS='NEW',
     -FORM='FORMATTED')
      GO TO 10003

10002 OPEN (25,FILE='GEOFILE1C',ACCESS='DIRECT',RECL=160,
     -FORM='UNFORMATTED')
      OPEN (26,FILE='GEOPRINTD2',STATUS='NEW',
     -FORM='FORMATTED')
      KH1(1:8) = 'TABLE 2 '
      KH2(1:32)= '(SEQUENCED BY DIPOLE CO-LAT)   '

10003 WRITE (26,100)KNPAGE
      WRITE (26,100)KH1
      WRITE (26,100)KH11
      WRITE (26,100)KH12
      WRITE (26,100)KSPACE
      WRITE (26,100)KSPACE
      WRITE (26,100)KH2
      WRITE (26,100)KSPACE
      WRITE (26,100)KH3
      WRITE (26,100)KH8
      WRITE (26,100)KH4
      WRITE (26,100)KH5
      WRITE (26,100)KH6
      WRITE (26,100)KH7

*************************************************
*     GEOGRAPHIC COORDINATES                    *
*************************************************

1001  READ (25,REC=INUM,ERR=2000)KOUT
      INUM = INUM + 1
      KH7(1:20) = KOUT(1:20)
      KH7(21:21) = ' '
      KH7(22:27) = KOUT(21:26)
      KH7(28:28) = ' '
      KH7(29:34) = KOUT(27:32)
      KH7(35:35) = ' '
      KH7(36:41) = KOUT(33:38)
*************************************************
*     DIPOLE                                    *
*************************************************
1002  KH7(42:45) = '    '
      KH7(46:51) = KOUT(40:45)
      KH7(52:52) = ' '
      KH7(53:58) = KOUT(46:51)
      KH7(59:61) = '   '
*************************************************
*     GUSTAFFSSON                               *
*************************************************
1003  KH7(62:67) = KOUT(53:58)
      KH7(68:68) = ' '
      KH7(69:74) = KOUT(59:64)
      KH7(75:77) = '   '
      IF (KH7(69:71) .EQ. '999')
     -KH7(62:74) = '            '
*************************************************
*     TSYGANENKO                                *
*************************************************
1004  KH7(78:83) = KOUT(66:71)
      KH7(84:84) = ' '
      KH7(85:90) = KOUT(72:77)
      IF (KH7(85:87) .EQ. '999')KH7(78:90) = '
*************************************************
*                ANNUAL MEANS                   *
*************************************************
1005  KH7(91:110) = '                    '
      KH7(111:132) = '                      '
      IF (KOUT(79:84) .NE. '1980.5')GO TO 1006
*************************************************
*                OBSERVED DATA                  *
*                -------------                  *
*     D ELEMENT                                 *
*************************************************
      KH7(97:102) = KOUT(85:90)
****************************************
*     H ELEMENT                        *
****************************************
      KH7(103:104) = '  '
```

```
      KH7(105:109) = KOUT(92:96)
      KH7(110:110) = ' '
****************************************
*     Z ELEMENT                        *
****************************************
      KH7(111:116) = KOUT(97:102)
      KH7(117:117) = ' '
****************************************
*     X ELEMENT                        *
****************************************
      KH7(118:123) = KOUT(103:108)
****************************************
*     Y ELEMENT                        *
****************************************
      KH7(125:130) = KOUT(109:114)
      GO TO 1007

*****************************************
*       C A L C U L A T E D   D A T A   *
*       ___________________________     *
*     D ELEMENT                         *
*****************************************
1006  KH7(97:102) = KOUT(125:130)
************************************
*     H ELEMENT                    *
************************************
      KH7(103:104) = '  '
      KH7(105:109) = KOUT(132:136)
      KH7(110:110) = ' '
************************************
*     Z ELEMENT                    *
************************************
      KH7(111:116) = KOUT(137:142)
      KH7(117:117) = ' '

************************************
*     X ELEMENT                    *
************************************
      KH7(118:123) = KOUT(143:148)
      KH7(124:124) = ' '
************************************
*     Y ELEMENT                    *
************************************
      KH7(125:130) = KOUT(149:154)
      KH7(131:131) = '*'
1007  WRITE (26,100)KH7
      KLOOP = KLOOP + 1
      IF (KLOOP .EQ. 5) GO TO 1009
      GO TO 1001

1009  KLOOP = 0
      WRITE (26,100)KSPACE
100   FORMAT (A132)
      KPAGE = KPAGE + 1
      IF (KPAGE .GE. 7) GO TO 1011
      GO TO 1001

1011  WRITE (26,100)KNPAGE
      WRITE (26,100)KSPACE
      WRITE (26,100)KSPACE
      WRITE (26,100)KSPACE
      WRITE (26,100)KH22
      WRITE (26,100)KSPACE
      WRITE (26,100)KH3
      WRITE (26,100)KH8
      WRITE (26,100)KH4
      WRITE (26,100)KH5
      WRITE (26,100)KH6
      WRITE (26,100)KSPACE
      KPAGE = 0
      KPAGE = 0
      GO TO 1001

2000  PRINT *,'END OF COPY NUMBER OF RECORDS = ',INUM
      IF (PASS(1:1) .EQ. '7')GO TO 2001
      PRINT *,'LISTING IS ON FILE  GEOPRINTD'
      GO TO 2002
2001  PRINT *,'LISTING IS ON FILE  GEOPRINTD2'
2002  RETURN
      END
*****************************************************
*                                                   *
*            LIST ONE OBSERVATORY                   *
*            99999999999999999999                   *
*****************************************************
```

```
      SUBROUTINE GEO1SB (PASS)

      INTEGER*4 KNUM,K19YR
      DIMENSION KNUM (500), KOUT1(50),K19YR(500)
      CHARACTER*3 KCOD (500)

      CHARACTER*200  KOUT
      CHARACTER*132  KH1
      CHARACTER*132  KH2
      CHARACTER*132  KH3
      CHARACTER*132  KH4
      CHARACTER*132  KH5
      CHARACTER*132  KH6
      CHARACTER*132  KH7
      CHARACTER*1    KPAGE
      CHARACTER*10   KLL
      CHARACTER*4    KYEAR
      CHARACTER*132  KSPACE
      CHARACTER*1    PASS
      CHARACTER*3    ICOD
      CHARACTER*16   KOBS
      CHARACTER*3    KCODE
      CHARACTER*5    KLAT
      CHARACTER*5    KLONG


      KPAGE (1:1) = ''
      KH1(1:7)    = 'TABLE V'
      KH1(8:35)   = '                           '
      KH1(36:61)  = 'CATALOG LISTING OF ANALOG'
      KH1(62:86)  = ' DIGITAL GEOMAGNETIC DATA'

      KH2(1:28)   = '                            '
      KH2(29:46)  = 'WORLD DATA CENTER '
      KH2(47:73)  = 'A=BOULDER B=MOSCOW C=KYOTO '
      KH2(74:106) = 'D=COPENHAGEN E=EDINBURGH I=BOMBAY'

      KH3(1:11)   = 'OBSERVATORY'
      KH3(12:19)  = '        '
      KH3(20:26)  = 'YEAR KA'
      KH3(27:36)  = 'Q         '
      KH3(37:45)  = '  NORMAL'
      KH3(46:54)  = '         '
      KH3(55:65)  = 'RAPID RUN'
      KH3(66:74)  = '         '
      KH3(75:88)  = ' HOURLY VALUES'
      KH3(89:97)  = '         '
      KH3(98:110) = 'HOURLY VALUES'
      KH3(111:118)= '        '
      KH3(119:129)= ' 2.5-MINUTE'

      KH4(1:16)   = '
      KH4(17:21)  = 'COMP '
      KH4(22:29)  = '        '
      KH4(29:32)  = ' WDC'
      KH4(33:47)  = '   MAGNETOGRAMS'
      KH4(48:53)  = '  WDC '
      KH4(54:65)  = 'MAGNETOGRAMS'
      KH4(66:74)  = '    WDC  '
      KH4(75:87)  = '  ANY  MEDIUM'
      KH4(88:99)  = '    WDC      '
      KH4(100:112) = 'ON  TAPE     '
      KH4(113:118)= ' WDC  '
      KH4(119:132)= ' 1.0-MINUTE(*)'

      KH5(1:16)   = '----------------'
      KH5(17:34)  = ' - ---- --- ------'
      KH5(35:48)  = ' -------------'
      KH5(49:53)  = ' ---'
      KH5(54:66)  = '------------'
      KH5(67:74)  = '  ------'
      KH5(75:88)  = ' -------------'
      KH5(90:98)  = '  ------ '
      KH5(99:111) = '-------------'
      KH5(112:117)= '  ----'
      KH5(118:131)= ' -------------'
 99   FORMAT (A1)

*********************************
*     LOAD INDEXES              *
*********************************
 5080 INUM = 1
      J= 1
 5081 READ (20,REC=INUM)KOUT1
      DO 5082 I=1,50
      KNUM (J) = KOUT1 (I)
      J=J+1
 5082 CONTINUE
      INUM = INUM + 1
      IF (INUM .GT. 10) GO TO 5083
      GO TO 5081

 5083 INUM = 11
      I1 = 1
      I2 = 3
      I3 = 1
 5084 READ (20,REC=INUM)KOUT
      DO 5085 I=1,50
      KCOD (I3) = KOUT (I1:I2)
      I1 = I1 + 3
```

```
      I2 = I2 + 3
      I3 = I3 + 1
5085  CONTINUE
      INUM = INUM + 1
      IF (INUM .GT. 20) GO TO 5086
      I1 = 1
      I2 = 3
      GO TO 5084

5086  INUM=21
      J=1
5087  READ (20,REC=INUM)KOUT1
      DO 5088  I = 1,50
      K19YR (J) = KOUT1 (I)
      J= J+1
5088  CONTINUE
      INUM = INUM + 1
      IF (INUM .GT. 30) GO TO 1000
      GO TO 5087
*****************************
*     INDEXES ARE LOADED  *
*****************************

1000  OPEN (19,FILE='GEOPRINT9',STATUS='NEW',FORM='FORMATTED
      PRINT *, 'YOU OUTPUT LISTING IS NAMED GEOPRINT9'

1001  PRINT *, 'ENTER OBSERVATORY CODE (LIKE VOS) OR END'
      READ (*,10)ICOD
10    FORMAT (A)
      IF (ICOD (1:3) .EQ. 'END') GO TO 9999
      J=1
1002  DO 1003 I=1,500
      IF (ICOD (1:3) .EQ. KCOD (I)) GO TO 1004
      J=J+1
1003  CONTINUE
      PRINT *, 'NO SUCH OBSERVATORY CODE'
      GO TO 1001
1004  INUM = KNUM (J)
      PRINT *, 'BEGIN LOCATION OF OBSERVATORY = ',  INUM

      WRITE (19,99) KPAGE
      WRITE (19,100)KH1
      WRITE (19,100)KH2
      WRITE (19,100)KSPACE
      KCOUNT = 3
100   FORMAT (A132)
*****************************
*     PRINT PAGE HEADERS  *
*****************************
2002  WRITE (19,100)KH3
      WRITE (19,100)KH4
      WRITE (19,100)KH5
      KCOUNT = KCOUNT + 3
      KPCNT = 0
2004  READ (20,REC=INUM,ERR=9999)KOUT
      INUM = INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 2004
2005  KOBS(1:16) = KOUT(1:16)
      KLAT(1:5) = KOUT (21:25)
      KLONG(1:5)  = KOUT(26:30)
      KCODE(1:3) = KOUT(17:19)
2006  KH7(1:16) = KOUT (1:16)
      KH7(17:17) = ' '
      KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7 (24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7 (26:27) = KOUT (39:40)
      KH7 (28:28) = '|'
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '|'
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) = ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '|'
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:90) = '|'
      KH7 (91:96) = KOUT (95:100)
      KH7 (97:97) = ' '
      KH7 (98:103) = KOUT (101:106)
      KH7 (104:104) = ' '
      KH7 (105:110) = KOUT (107:112)
      KH7 (111:112) = '|'
      KH7 (113:116) = KOUT (113:118)
      KH7 (117:117) = ' '
      KH7 (118:123) = KOUT (119:124)
      KH7 (124:124) = ' '
      KH7 (125:130) = KOUT (125:130)
      KH7 (131:131) = ' '
```

```
      KH7 (132:132) = '| '
      IF (KOUT(131:136) .EQ. '      ') GO TO 2007
      KH7(113:116) = KOUT (131:136)
      KH7(117:117) = ' '
      KH7(118:123) = KOUT (137:142)
      KH7(124:124) = ' '
      KH7(125:130) = KOUT (143:148)
      KH7(131:131) = '*'
2007  WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1

************************************
*     SECOND RECORD                *
************************************
2008  READ (20,REC=INUM,ERR=9999)KOUT
      INUM = INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 2008
      IF (KOUT(1:16) .EQ. KOBS (1:16)) GO TO 2009
      GO TO 1001
2009  KH7 (1:3)   = KOUT (17:19)
      KH7 (4:16)  = '              '
      KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7(24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7(26:27) = KOUT (39:40)
      KH7 (28:28) = '| '
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '| '
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) =  ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '| '
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:90) = '| '
      KH7 (91:96) = KOUT (95:100)
      KH7 (97:97) = ' '
      KH7 (98:103) = KOUT (101:106)
      KH7 (104:104) = ' '
      KH7 (105:110) = KOUT (107:112)
      KH7 (111:112) = '| '
      KH7 (113:116) = KOUT (113:118)
      KH7 (117:117) = ' '
      KH7 (118:123) = KOUT (119:124)
      KH7 (124:124) = ' '
      KH7 (125:130) = KOUT (125:130)
      KH7 (131:131) = ' '
      KH7 (132:132) = '| '
      IF (KOUT(131:136) .EQ. '      ') GO TO 20099
      KH7(113:116) = KOUT (131:136)
      KH7(117:117) = ' '
      KH7(118:123) = KOUT (137:142)
      KH7(124:124) = ' '
      KH7(125:130) = KOUT (143:148)
      KH7(131:131) = '*'

20099 WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1

************************************
*     THIRD RECORD                 *
************************************
2010  READ (20, REC=INUM,ERR=9999)KOUT
      KLL(1:10) =KOUT(21:30)
      INUM = INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 2010
      IF (KOUT (1:16) .NE. KOBS (1:16)) GO TO 1001
20101 KH7(1:1)   = '('
      KH7 (2:4)  = KOUT (21:23)
      IF (KH7(2:2) .EQ. ' ') KH7(2:2) = '0'
      IF (KH7(3:3) .EQ. ' ') KH7(3:3) = '0'
      IF (KH7(3:3) .EQ. '-') KH7(2:2) = ' '
      KH7 (5:5)  = '.'
      KH7 (6:7)  = KOUT (24:25)
      KH7 (8:8) = ' '
      KH7 (9:11)  = KOUT (26:28)
      KH7 (12:12) = '.'
      KH7 (13:14) = KOUT (29:30)
      KH7 (15:16) = ') '
      KH7 (17:17) = ' '
      KH7 (18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7 (24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7 (26:27) = KOUT (39:40)
      KH7 (28:28) = '| '
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
```

```
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '|'
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) = ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '|'
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:90) = '|'
      KH7 (91:96) = KOUT (95:100)
      KH7 (97:97) = ' '
      KH7 (98:103) = KOUT (101:106)
      KH7 (104:104) = ' '
      KH7 (105:110) = KOUT (107:112)
      KH7 (111:112) = '|'
      KH7 (113:116) = KOUT (113:118)
      KH7 (117:117) = ' '
      KH7 (118:123) = KOUT (119:124)
      KH7 (124:124) = ' '
      KH7 (125:130) = KOUT (125:130)
      KH7 (131:131) = ' '
      KH7 (132:132) = '|'
      IF (KOUT(131:136) .EQ. '      ') GO TO 2011
      KH7(113:116) = KOUT (131:136)
      KH7(117:117) = ' '
      KH7(118:123) = KOUT (137:142)
      KH7(124:124) = ' '
      KH7(125:130) = KOUT (143:148)
      KH7(131:131) = '*'
2011  WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1
      KH7(1:16) = '
*****************************************
*     REST OF RECORDS                   *
*****************************************
2012  READ (20,REC=INUM,ERR=9999)KOUT
      INUM=INUM + 1
      IF (KOUT(17:19) .EQ. '   ') GO TO 2012
      IF (KOUT(1:16) .EQ. KOBS(1:16)) GO TO 2013
      WRITE (19,100)KH5
      GO TO 1001
2013  KH7(17:17) = ' '
      IF (KOUT(21:30) .EQ. KLL(1:10)) GO TO 20131
      KLL(1:10) = KOUT (21:30)
      GO TO 20101
20131 KH7(18:18) = KOUT (36:36)
      KH7 (19:19) = ' '
      KH7 (20:23) = KOUT (31:34)
      KH7(24:24) = ' '
      KH7 (25:25) = KOUT (35:35)
      KH7(26:27) = KOUT (39:40)
      KH7 (28:28) = '|'
      KH7 (29:34) = KOUT (41:46)
      KH7 (35:35) = ' '
      KH7 (36:41) = KOUT (47:52)
      KH7 (42:42) = ' '
      KH7 (43:48) = KOUT (53:58)
      KH7 (49:49) = '|'
      KH7 (50:52) = KOUT (59:61)
      KH7 (53:53) = ' '
      KH7 (54:59) = KOUT (65:70)
      KH7 (60:60) = ' '
      KH7 (61:66) = KOUT (71:76)
      KH7 (67:68) = '|'
      KH7 (69:74) = KOUT (77:82)
      KH7 (75:75) = ' '
      KH7 (76:81) = KOUT (83:88)
      KH7 (82:82) = ' '
      KH7 (83:88) = KOUT (89:94)
      KH7 (89:90) = '|'
      KH7 (91:96) = KOUT (95:100)
      KH7 (97:97) = ' '
      KH7 (98:103) = KOUT (101:106)
      KH7 (104:104) = ' '
      KH7 (105:110) = KOUT (107:112)
      KH7 (111:112) = '|'
      KH7 (113:116) = KOUT (113:118)
      KH7 (117:117) = ' '
      KH7 (118:123) = KOUT (119:124)
      KH7 (124:124) = ' '
      KH7 (125:130) = KOUT (125:130)
      KH7 (131:131) = ' '
      KH7 (132:132) = '|'
      IF (KOUT(131:136) .EQ. '      ') GO TO 2014
      KH7(113:116) = KOUT (131:136)
      KH7(117:117) = ' '
      KH7(118:123) = KOUT (137:142)
      KH7(124:124) = ' '
      KH7(125:130) = KOUT (143:148)
      KH7(131:131) = '*'
2014  WRITE (19,100)KH7
      KCOUNT = KCOUNT + 1
      GO TO 2012
```

```
 9999  RETURN
       END

       SUBROUTINE GEOANN (PASS)
*****************************************************
*                                                   *
*     CREATES TABLES 3,4,5 FROM ANNUAL DATA BASE    *
*                                                   *
*     TABLE 3 = BEGINNING AND ENDING ANNUAL VALUES  *
*               FOR EACH OBSERVATORY                *
*     TABLE 4 = LOG OF YEARS FOR 1810-1899 WHERE    *
*               ANNUAL MEAN VALUES EXIST            *
*     TABLE 5 = LOG OF YEARS FOR 1900-1990 WHERE    *
*               ANNUAL MEAN VALUES EXIST            *
*****************************************************

*****************************************************
*                                                   *
*     R E C O R D   F O R M A T (GEOANNUAL)         *
*****************************************************
*   KOUT CC 1   -  19  = OBSERVATORY NAME           *
*           20  -      = not used                   *
*           21  -  23  = OBSERVATORY CODE           *
*           24         = not used                   *
*           25  -  32  = DATE                       *
*           33  -  40  = LATITUDE                   *
*           41  -  48  = LONGITUDE (East)           *
*           49  -  54  = ELEVATION (Meters)         *
*           55  -  62  = DECLINATION          (D)   *
*           63  -  70  = INCLINATION          (I)   *
*           71  -  76  = HORIZONTAL INTENSITY (H)   *
*           77  -  82  = NORTH COMPONENT      (X)   *
*           83  -  88  = EAST  COMPONENT      (Y)   *
*           89  -  95  = VERTICAL INTENSITY   (Z)   *
*           96  - 101  = TOTAL    INTENSITY   (F)   *
*          102         = not used                   *
*          103         = RECORD TYP FLAG            *
*          104  - 106  = FOOT NOTE                  *
*          107  - 111  = DATA SOURCE                *
*          112  - 116  = SOURCE CODE                *
*          117  - 119  = ELEMENT CODE               *
*          120         = not used                   *
*          121  - 123  = COUNTRY CODE               *
*          124         = not used                   *
*          125  - 130  = RECORD NUMBER              *
*****************************************************

      CHARACTER*130 KOUT
      CHARACTER*10  PASS
      CHARACTER*1   KE

      CHARACTER*131 KH11
      CHARACTER*131 KH12
      CHARACTER*131 KH13
      CHARACTER*131 KH14
      CHARACTER*131 KSPACE
      CHARACTER*2   KNPAGE

      CHARACTER*131 KH21
      CHARACTER*131 KH22
      CHARACTER*131 KH23
      CHARACTER*131 KH24
      CHARACTER*131 KH25
      CHARACTER*131 KH26
      CHARACTER*131 KH27
      CHARACTER*131 KH28
      CHARACTER*131 KH29
      CHARACTER*131 KH210
      CHARACTER*131 KH211
      CHARACTER*131 KH212
      CHARACTER*131 KH213
      CHARACTER*131 KH214
      CHARACTER*131 KH215
      CHARACTER*131 KH216
      CHARACTER*131 KH217
      CHARACTER*131 KH218
      CHARACTER*131 KH31
      CHARACTER*131 KH32
      CHARACTER*131 KH33
      CHARACTER*131 KH34
      CHARACTER*131 KH35

      KNPAGE (1:1) = ''

      KSPACE (1:30) = '                              '
      KSPACE (31:60) = '                             '
      KSPACE (61:90) = '                             '
      KSPACE (91:120) = '                            '
      KSPACE (121:131) = '           '

      KH11(1:35) = '                                  '
      KH11(36:72) = 'A N N U A L   G E O M A G N E T I C'
      KH11(73:94) = '   D A T A   B A S E'
      KH11(1:35) = '                                  '

      KH12(1:20) = ' OBSERVATORY       '
      KH12(21:25) = 'CODE  '
      KH12(26:56) = '  YEAR     LAT    LONG     ALT '
      KH12(57:92) = '   D       I      H     X     Y   '
      KH12(93:120) = ' Z     F  FLG N    S  DN EL'
      KH12(121:131) ='E  CT NUMBER'

      KH13(1:20) = ' ------------------ '
```

```
KH13(21:25) = '---- '
KH13(26:60) = '-------- ------- -------   ---  --'
KH13(61:71) = '----  ------ '
KH13(72:100) = ' ----- ----- -----  ----- --'
KH13(101:116)= '--- -  -   -- ---'
KH13(117:131) = ' ---  -- ------'

KH21(1:20) = 'TABLE 5                '
KH21(21:62) = '   G E O M A G N E T I C   A N N U A L'
KH21(63:80) = 'M E A N   L O G:'
KH21(81:110) = '     1 9 0 0  -  PRESENT'

KH218(1:20) = '                    '
KH218(21:42)= '   ----------------'
KH218(43:70)= '----------------------------'
KH218(71:110)= '--------------'
KH22(1:27)   = '                         Y   1'
KH22(28:38)  = '           1'
KH22(39:49)  = '           1'
KH22(50:60)  = '           1'
KH22(61:71)  = '           1'
KH22(72:82)  = '           1'
KH22(83:93)  = '           1'
KH22(94:104) = '           1'
KH22(105:115)= '           1'
KH22(116:126)= '           1'

KH23(1:27)   = '                         E   9'
KH23(28:38)  = '           9'
KH23(39:49)  = '           9'
KH23(50:60)  = '           9'
KH23(61:71)  = '           9'
KH23(72:82)  = '           9'
KH23(83:93)  = '           9'
KH23(94:104) = '           9'
KH23(105:115)= '           9'
KH23(116:126)= '           9'
KH24(1:27)   = '                         A   0'
KH24(28:38)  = '           1'
KH24(39:49)  = '           2'
KH24(50:60)  = '           3'
KH24(61:71)  = '           4'
KH24(72:82)  = '           5'
KH24(83:93)  = '           6'
KH24(94:104) = '           7'
KH24(105:115)= '           8'
KH24(116:126)= '           9'

KH25(1:26)   = 'OBSERVATORY     CODE  R    '
KH25(27:37)   = '0123456789 '
KH25(38:48)   = '0123456789 '
KH25(49:59)   = '0123456789 '
KH25(60:70)   = '0123456789 '
KH25(71:81)   = '0123456789 '
KH25(82:92)   = '0123456789 '
KH25(93:103)  = '0123456789 '
KH25(104:114) = '0123456789 '
KH25(115:125) = '0123456789 '
KH25(126:131) = '0      '

KH26(1:40)= '--------------- ----      ---------- -'
KH26(41:58)='---------- ----------'
KH26(59:90) = ' ---------- ---------- ---------'
KH26(91:113) = '-- ---------- ----------'
KH26(114:131) = ' ---------- -     '

KH214(1:22) = 'TABLE 4                 '
KH214(23:62) = ' G E O M A G N E T I C   A N N U A L'
KH214(63:80) = 'M E A N   L O G:'
KH214(81:110) = '     1 8 1 0  -  1 8 9 9'

KH29(1:27)   = '                         Y   1'
KH29(28:38)  = '           1'
KH29(39:49)  = '           1'
KH29(50:60)  = '           1'
KH29(61:71)  = '           1'
KH29(72:82)  = '           1'
KH29(83:93)  = '           1'
KH29(94:104) = '           1'
KH29(105:115)= '           1'

KH210(1:27)   = '                         E   8'
KH210(28:38)  = '           8'
KH210(39:49)  = '           8'
KH210(50:60)  = '           8'
KH210(61:71)  = '           8'
KH210(72:82)  = '           8'
KH210(83:93)  = '           8'
KH210(94:104) = '           8'
KH210(105:115)= '           8'

KH211(1:27)   = '                         A   1'
KH211(28:38)  = '           2'
KH211(39:49)  = '           3'
KH211(50:60)  = '           4'
KH211(61:71)  = '           5'
KH211(72:82)  = '           6'
KH211(83:93)  = '           7'
KH211(94:104) = '           8'
```

```
      KH211(105:115)= '         9'

      KH212(1:26)   = 'OBSERVATORY     CODE  R   '
      KH212(27:37)   = '0123456789 '
      KH212(38:48)   = '0123456789 '
      KH212(49:59)   = '0123456789 '
      KH212(60:70)   = '0123456789 '
      KH212(71:81)   = '0123456789 '
      KH212(82:92)   = '0123456789 '
      KH212(93:103)  = '0123456789 '
      KH212(104:114) = '0123456789 '
      KH212(115:125) = '0123456789 '

      KH213(1:40)   ='--------------- ----      ---------- -
      KH213(41:58)  =' --------- ----------'
      KH213(59:90)  = ' ---------- ---------- --------'
      KH213(91:113) ='-- ---------- ----------'
      KH213(114:131)= ' ----------'

      KH215(1:20)   = '                    '
      KH215(21:54)  = '1=XHZ     2=DHZ     3=DIH     4=DI '
      KH215(55:90)  = '      5=DH      6=DZ      7=IHZ    '
      KH215(91:105) = ' 8=IH      9=IZ    '
      KH215(106:115)= '  D=D ONLY'

      KH216(1:20)   = '                    '
      KH216(21:60)  = 'F=F ONLY  H=H ONLY  I=I ONLY  Z=Z ONL
      KH216(61:90) = 'Q=HZ      P=DIF     R=DHF     '
      KH216(91:115) = ' S=XYF     T=DHX  U=   HZF'

      KH217(1:20) = '                    '
      KH217(21:57)= '*=INCOMPLETE YEAR   -----------------'
      KH217(58:91) = '-----------------------------------'
      KH217(92:115) = '---   ?=UNKNOWN ELEMENTS'

      KH31(1:30) = 'TABLE 3                         '
      KH31(31:69) = 'O B S E R V E D   G E O M A G N E T I C
      KH31(70:100) = '   A N N U A L   M E A N S'

      KH32(1:30) = '                          ----'
      KH32(31:54)= '------EARLIEST COMPLETE '
      KH32(55:87) ='YEAR------------        --------'
      KH32(88:130) = '------LATEST COMPLETE YEAR-----------'
      KH33(1:23) = 'OBSERVATORY        CODE'
      KH33(24:50) = '   ELE YEAR    D       H  '
      KH33(51:71) =  '    X       Y       Z   '
      KH33(72:99) = '        ELE YEAR     D       '
      KH33(100:131)= 'H      X       Y       Z'

      KH35(1:24) = '-----------------  ---  '
      KH35(25:49) = '  --- ---- -------  -----'
      KH35(50:72) = '  -----  -----  ------ '
      KH35(73:100) = '        --- ---- -------  ---'
      KH35(101:125)= '--  -----  -----  ------'
      OPEN (25,FILE='GEOANNUAL',ACCESS='DIRECT',RECL=130,
     -FORM='UNFORMATTED')
10    FORMAT (A)
      PRINT *,
     - '_____________________________________________________'
      PRINT *,
     - '|  WELCOME TO GEOMAGNETIC/ANNUAL LISTING SYSTEM  |'
      PRINT *,
     - '|_____________________________________________________|'
      PRINT *,' '

1001  PRINT *, '
      PRINT *, '|   ENTER 1 = COMPLETE  ANNUAL VALUE LISTING
      PRINT *, '|   ENTER 2 = LOG OF    ANNUAL VALUE LISTING
      PRINT *, '|   ENTER 3 = BEGIN/END ANNUAL VALUE LISTING
      PRINT *, '|   ENTER E = END PROGRAM
      PRINT *, '|_____________________________________________'
      K1=0
      K3=0
      READ (*,10)PASS
      IF (PASS(1:1) .EQ. '1') GO TO 2000
      IF (PASS(1:1) .EQ. '2') GO TO 3000
      IF (PASS(1:1) .EQ. '3') GO TO 4000
      GO TO 9999
*************************************************************
*     COMPLETE ANNUAL VALUE FILE LISTING
*************************************************************
2000  K1=K1+1
      IF (K1 .NE. 1)GO TO 20000
      OPEN (26,FILE='GEOPRINTE',STATUS='NEW',FORM='FORMATTED
20000 INUM=1
      WRITE (26,11)KNPAGE
      WRITE (26,11)KH11
      WRITE (26,11)KSPACE
      WRITE (26,11)KH12
      WRITE (26,11)KH13
      WRITE (26,11)KSPACE
      KL=4
2001  READ (25,REC=INUM,ERR=7777)KOUT
      INUM=INUM+1
      WRITE (26,11)KOUT
11    FORMAT (A131)
      KL=KL+1
      IF (KL .GT. 58) GO TO 2002
```

```
      GO TO 2001
2002  WRITE (26,11)KNPAGE
      WRITE (26,11)KH12
      WRITE (26,11)KH13
      WRITE (26,11)KSPACE
      KL=4
      GO TO 2001
************************************************************
*     LOG LISTING (TABLES 4 AND 5)                         *
************************************************************
3000  KC=-1
      KCC=0
      KB=-1
      KBB=0
      K2=K2+1

      IF (K2 .NE. 1) GO TO 3001
      OPEN (26,FILE='GEOPRINTH',STATUS='NEW',
     -FORM='FORMATTED')
      OPEN (27,FILE='GEOPRINTJ',STATUS='NEW',
     -FORM='FORMATTED')
      PRINT *,
     -'LOG LISTING FOR 1900-PRESENT IS ON FILE GEOPRINTH'
      PRINT *,
     -'LOG LISTING FOR 1800-1899    IS ON FILE GEOPRINTJ'

3001  WRITE (26,11)KNPAGE
      WRITE (26,11)KH21
      WRITE (26,11)KH218
      WRITE (26,11)KSPACE
      WRITE (26,11)KH22
      WRITE (26,11)KH23
      WRITE (26,11)KH24
      WRITE (26,11)KH25
      WRITE (26,11)KH26

      WRITE (27,11)KNPAGE
      WRITE (27,11)KH214
      WRITE (27,11)KH218
      WRITE (27,11)KSPACE
      WRITE (27,11)KH29
      WRITE (27,11)KH210
      WRITE (27,11)KH211
      WRITE (27,11)KH212
      WRITE (27,11)KH213

      INUM=1
3002  READ (25,REC=INUM,ERR=6666)KOUT
      INUM=INUM+1
3003  READ (KOUT,FMT='(26X,I2)')KYR
      KE(1:1)='?'
      IF (KOUT(117:119) .EQ. 'DHZ') KE='2'
      IF (KOUT(117:119) .EQ. 'DIH') KE='3'
      IF (KOUT(117:119) .EQ. 'DHI') KE='3'
      IF (KOUT(117:119) .EQ. 'DI ') KE='4'
      IF (KOUT(117:119) .EQ. 'XYZ') KE='1'
      IF (KOUT(117:119) .EQ. 'DH ') KE='5'
      IF (KOUT(117:119) .EQ. ' DH') KE='5'
      IF (KOUT(117:119) .EQ. 'DZ ') KE='6'
      IF (KOUT(117:119) .EQ. 'IHZ') KE='7'
      IF (KOUT(117:119) .EQ. 'IH ') KE='8'
      IF (KOUT(117:119) .EQ. 'IZ ') KE='9'
      IF (KOUT(117:119) .EQ. 'HZ ') KE='Q'
      IF (KOUT(117:119) .EQ. ' HZ') KE='Q'
      IF (KOUT(117:119) .EQ. 'D  ') KE='D'
      IF (KOUT(117:119) .EQ. '  D') KE='D'
      IF (KOUT(117:119) .EQ. 'H  ') KE='H'
      IF (KOUT(117:119) .EQ. 'Z  ') KE='Z'
      IF (KOUT(117:119) .EQ. 'I  ') KE='I'
      IF (KOUT(117:119) .EQ. 'DIF') KE='P'
      IF (KOUT(117:119) .EQ. 'DHF') KE='R'
      IF (KOUT(117:119) .EQ. 'F  ') KE='F'
      IF (KOUT(117:119) .EQ. 'XYF') KE='S'
      IF (KOUT(117:119) .EQ. 'DHX') KE='T'
      IF (KOUT(30:31) .NE. '50')    KE='*'

3004  IF (KOUT(25:26) .EQ. '19') GO TO 3005
      IF (KOUT(25:26) .EQ. '18') GO TO 3015
      IF (KOUT(25:26) .EQ. '  ') GO TO 3002
      PRINT *,'ERROR',' ',KOUT(1:40)
      GO TO 3002
************************************************************
*     1900-PRESENT LOG LISTING                             *
*     ARRAY POSITION BEGINS IN 27                          *
*     AND INCREASES 10 POSITIONS FOR                       *
*     FOR EACH 9 YEARS                                     *
************************************************************

3005  IF (KH27(1:16) .EQ. KOUT(1:16))GO TO 3007
      WRITE (26,11)KH27

3006  KH27(1:16) = KOUT(1:16)
      KH27(17:17) = ' '
      KH27(18:20) =KOUT(21:23)
      KH27(21:21) = ' '
      KH27(22:23) = '  '
      KH27(24:26) = '
      KH27(27:60) = '
      KH27(61:96) = '
      KH27(97:131)= '
```

```
      KC=KC+1
      IF (KC .GE. 5)GO TO 3008
 3007 KD = KYR /10
      KPOS = 27 + KYR + KD
      KH27(KPOS:KPOS) = KE(1:1)
      GO TO 3002
 3008 WRITE (26,11)KH26
      KC=0
      KCC=KCC+1
      IF (KCC .GE. 7) GO TO 3009
      GO TO 3007
 3009 WRITE (26,11)KH26
      WRITE (26,11)KSPACE
      WRITE (26,11)KH215
      WRITE (26,11)KH216
      WRITE (26,11)KH217

      WRITE (26,11)KNPAGE
      WRITE (26,11)KSPACE
      WRITE (26,11)KH22
      WRITE (26,11)KH23
      WRITE (26,11)KH24
      WRITE (26,11)KH25
      WRITE (26,11)KH26
      KCC=0
      GO TO 3007
*****************************************************
*     LOG LISTING 1800-1899 (TABLE 4)               *
*****************************************************
 3015 IF (KH28(1:16) .EQ. KOUT(1:16))GO TO 3017
      WRITE (27,11)KH28

 3016 KH28(1:16) = KOUT(1:16)
      KH28(17:17) = ' '
      KH28(18:20) =KOUT(21:23)
      KH28(21:21) = ' '
      KH28(22:23) = '  '
      KH28(24:26) = '   '
      KH28(27:60) = '
      KH28(61:96) = '
      KH28(97:131)= '
      KB=KB+1
      IF (KB .GE. 5)GO TO 3018

 3017 KD = KYR /10
      KPOS = 16 + KYR + KD
      KH28(KPOS:KPOS) = KE(1:1)
      GO TO 3002
 3018 WRITE (27,11)KH213
      KB=0
      KBB=KBB+1
      IF (KBB .GE. 7) GO TO 3019
      GO TO 3017
 3019 WRITE (27,11)KH213
      WRITE (27,11)KSPACE
      WRITE (27,11)KH215
      WRITE (27,11)KH216
      WRITE (27,11)KH217

      WRITE (27,11)KNPAGE
      WRITE (27,11)KSPACE
      WRITE (27,11)KH29
      WRITE (27,11)KH210
      WRITE (27,11)KH211
      WRITE (27,11)KH212
      WRITE (27,11)KH213
      KBB=0
      GO TO 3017
*****************************************************
*     TABLE 3    BEGIN/END LISTING                  *
*****************************************************
 4000 K3=K3+1
      IF (K3 .NE. 1)GO TO 4001
      OPEN (26,FILE='GEOPRINTG',STATUS='NEW',
     -FORM='FORMATTED')
      PRINT *,'FILE = GEOPRINTG - OPENED'
 4001 WRITE (26,11)KNPAGE
      WRITE (26,11)KH31
      WRITE (26,11)KSPACE
      WRITE (26,11)KH32
      WRITE (26,11)KSPACE
      WRITE (26,11)KH33
      WRITE (26,11)KH35
      WRITE (26,11)KSPACE
      INUM=1
      KC=0
      KCC=0
*************************************************
*     BEGINNING YEAR                            *
*************************************************
 4002 READ (25,REC=INUM,ERR=8888)KOUT
      INUM=INUM+1
      IF (KOUT(30:30) .NE. '5') GO TO 4002
      IF (KOUT(58:62) .EQ. '0.000') GO TO 4002
      IF (KOUT(58:62) .EQ. ' .000') GO TO 4002
      IF (KOUT(72:76) .EQ. '    0') GO TO 4002
      IF (KOUT(91:95) .EQ. '    0') GO TO 4002
      IF (KOUT(102:102) .EQ. 'D')   GO TO 4002
      IF (KOUT(102:102) .EQ. 'Q')   GO TO 4002
      KH34(1:17) = KOUT(1:17)
```

```
      KH34(18:19) = '  '
      KH34(20:22) = KOUT(21:23)
      KH34(23:26) = '    '
      KH34(27:29) = KOUT(117:119)
      KH34(30:30) = ' '
      KH34(31:34) = KOUT(25:28)
      KH34(35:35) = ' '
      KH34(36:42) = KOUT(56:62)
      KH34(43:44) = '  '
      KH34(45:49) = KOUT(72:76)
      KH34(50:51) = '  '
      KH34(52:56) = KOUT(78:82)
      KH34(57:57) = ' '
      KH34(58:63) = KOUT(83:88)
      KH34(64:65) = '  '
      KH34(66:71) = KOUT(90:95)
      KH34(72:79) = '        '
*********************************************
*                                           *
*     LATEST YEAR                           *
*********************************************
4003  READ (25,REC=INUM,ERR=8880)KOUT
      INUM=INUM+1
      IF (KOUT(1:17) .EQ. KH34(1:17))GO TO 4003
4004  INUM=INUM-2
4005  READ (25,REC=INUM,ERR=8888)KOUT
      IF (KOUT(30:30) .NE. '5')GO TO 4007
      IF (KOUT(58:62) .EQ. '0.000') GO TO 4007
      IF (KOUT(58:62) .EQ. ' .000') GO TO 4007
      IF (KOUT(72:76) .EQ. '    0') GO TO 4007
      IF (KOUT(91:95) .EQ. '    0') GO TO 4007
      IF (KOUT(102:102) .EQ. 'D')   GO TO 4007
      IF (KOUT(102:102) .EQ. 'Q')   GO TO 4007
      INUM=INUM +1
4006  KH34(80:82) = KOUT(117:119)
      KH34(83:83) = ' '
      KH34(84:87) = KOUT(25:28)
      KH34(88:88) = ' '
      KH34(89:95) = KOUT(56:62)
      KH34(96:97) = '  '
      KH34(98:102) = KOUT(72:76)
      KH34(103:104) = '  '
      KH34(105:109) = KOUT(78:82)
      KH34(110:110) = ' '
      KH34(111:116) = KOUT(83:88)
      KH34(117:118) = '  '
      KH34(119:124) = KOUT(90:95)
      WRITE(26,11)KH34
      KC=KC+1
      IF (KC .EQ. 5)GO TO 4010
      GO TO 4002
4007  J=INUM-1
4008  READ (25,REC=J,ERR=8888)KOUT
      J=J-1
      IF (KOUT(58:62) .EQ. '0.000') GO TO 4008
      IF (KOUT(58:62) .EQ. ' .000') GO TO 4008
      IF (KOUT(72:76) .EQ. '    0') GO TO 4008
      IF (KOUT(91:95) .EQ. '    0') GO TO 4008
      IF (KOUT(102:102) .EQ. 'D')   GO TO 4008
      IF (KOUT(102:102) .EQ. 'Q')   GO TO 4008

      IF (KOUT(30:30) .EQ. '5')GO TO 4009
      GO TO 4008
4009  INUM=INUM+1
      GO TO 4006
4010  WRITE (26,11)KSPACE
      KC=0
      KCC=KCC+1
      IF (KCC .EQ. 7)GO TO 4011
      GO TO 4002
4011  WRITE (26,11)KNPAGE
      WRITE (26,11)KH32
      WRITE (26,11)KSPACE
      WRITE (26,11)KH33
      WRITE (26,11)KH35
      WRITE (26,11)KSPACE
      KCC=0
      GO TO 4002
6666  WRITE (26,11)KH27
      WRITE (26,11)KH26
      WRITE (26,11)KH26
      WRITE (26,11)KH215
      WRITE (26,11)KH216
      WRITE (26,11)KH217
6667  WRITE (27,11)KH28
      WRITE (27,11)KH213
      WRITE (27,11)KH213
      WRITE (27,11)KH215
      WRITE (27,11)KH216
      WRITE (27,11)KH217
      PRINT *,
     -'END OF LOG LIST--OUTPUT FILE 1900 IS GEOPRINTH'
      PRINT *,
     -'                  OUTPUT FILE 1800 IS GEOPRINTJ'
      GO TO 1001
7777  PRINT *,
     -'END OF ANNUAL LISTING--OUTPUT FILE IS GEOPRINTE'
      GO TO 1001
8880  INUM=INUM-1
8881  READ (25,REC=INUM,ERR=8888)KOUT
      INUM=INUM -1
```

```
3013        IF (KOUT(1:17) .NE. KH34(1:17))GO TO 8884
3014        IF (KOUT(30:30) .NE. '5')GO TO 8881
3015        IF (KOUT(58:62) .EQ. '0.000') GO TO 8881
3016        IF (KOUT(58:62) .EQ. ' .000') GO TO 8881
3017        IF (KOUT(72:76) .EQ. '    0') GO TO 8881
3018        IF (KOUT(91:95) .EQ. '    0') GO TO 8881
3019        IF (KOUT(102:102) .EQ. 'D')   GO TO 8881
3020        IF (KOUT(102:102) .EQ. 'Q')   GO TO 8881
3021 8882  KH34(78:80) = KOUT(117:119)
3022        KH34(81:81) = ' '
3023        KH34(82:85) = KOUT(25:28)
3024        KH34(86:86) = ' '
3025        KH34(87:93) = KOUT(56:62)
3026        KH34(94:95) = '  '
3027        KH34(96:100) = KOUT(72:76)
3028        KH34(101:102) =  '  '
3029        KH34(103:107) = KOUT(78:82)
3030        KH34(108:108) = ' '
3031        KH34(109:114) = KOUT(83:88)
3032        KH34(115:116) = '  '
3033        KH34(117:122) = KOUT(90:95)
3034        WRITE(26,11)KH34
3035        GO TO 8888
3036
3037 8884  KH34(78:122) = '
3038        WRITE (26,11)KH34
3039
3040 8888  PRINT *,
3041       -'END OF BEGIN/END ANNUAL LISTING--OUTPUT FILE IS GEOPR
3042        GO TO 1001
3043 9999  PRINT *,'END OF COPY NUMBER OF RECORDS = ', INUM
3044        RETURN
3045        END
```

Table 12

## GEOMAGNETIC HOURLY VALUE GAMMA PROGRAM

```
1 CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
2 CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
3 C                                                                   C
4 C        PROGRAM:    GAMMA                                          C
5 C                                                                   C
6 C        WRITTEN BY: N.E.PAPITASHVILI,                              C
7 C                    WDC-B2                                         C
8 C                    MOSCOW,USSR                                    C
9 C                                                                   C
10 C                   V.O.PAPITASHVILI,                              C
11 C                   IZMIRAN                                        C
12 C                   MOSCOW REGION,USSR                             C
13 C                                                                  C
14 C         LANGUAGE:  FORTRAN-4                                     C
15 C                                                                  C
16 C         COMPUTER:  IBM-360 (ES series)                           C
17 C                    PDP-1140 (SM-4)                               C
18 CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
19
20 CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
21 C                    INTRODUCTION                                   C
22 C                    ------------                                   C
23 C    THE PROGRAM WAS DEVELOPED ON BASIS OF THE                      C
24 C    HOURLY MAGNETIC AND METEOLOGICAL DATA EDITING                  C
25 C    ROUTINE (MORRIS J., GUPTA J.C. PROGRAM DATACK.-                C
26 C    EPRINT. DIVISION OF GEOMAGNETISM, EPB/EMR CANADA,              C
27 C    OTTAWA, 1979, 15 P.).                                          C
28 C    FOR THE EDITING OF 2.5-MINUTE DATA                             C
29 C    THE ESSENTIAL CHANGES AND SUPPLEMENTS WERE INCLUDED            C
30 C    AND THE PROGRAM WAS ADAPTED FOR IBM/360 (ES SERIES)            C
31 C    OR PDP 11/40 OR SM-4 COMPATIBLE COMPUTERS.                     C
32 CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
33
34 CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
35 C    THE PURPOSE OF THIS PROGRAM IS AS FOLLOWS:                     C
36 C    ------------------------------------------                     C
37 C    THE PROGRAM CAN VERIFY THE STANDARD IAGA-FORMATED              C
38 C    FILES OF HOURLY OR 2.5-MINUTE VALUES OF GEOMAGNETIC            C
39 C    DATA (THE LOGICAL RECORD LENGTH IS 120 BYTES)                  C
40 C    AND CORRECT WRONG DATA USING EDITING FUNCTIONS.                C
41 C                                                                   C
42 C    THE FORMAT OF THE VERIFICATION CARDS                           C
43 C    ------------------------------------                           C
44 C    1-ST CARD CC  1-40  ARBITRARY HEADER                           C
45 C    (THE FIRST FOUR CHARACTERS MUST BE <HOUR> OR <2.5->)           C
46 C    2-ND CARD                                                      C
47 C    CC  1- 4  MAXIMUM PERMISSIBLE                                  C
48 C              JUMP FOR H/X COMPONENT DATA (NT)                     C
49 C    CC  5- 8  THE SAME FOR D/Y (TENTH OF MINUTES)                  C
50 C    CC  9-12  THE SAME FOR Z [NT]                                  C
51 C    CC 13-16  THE CORRECTION PRINTOUT   OPTION: < YES> OR          C
52 C              BLANKS                                               C
53 C    CC 17-20  THE NEW COPY OF IAGA-FILE OPTION: < YES> OR          C
54 C              BLANKS                                               C
55 C    CC 21-25  MAXIMUM PERMIS. ERRORS (BLANKS FOR 10000 OR          C
56 C              MORE)                                                C
57 C              THE EDITING FUNCTIONS UNITED IN TWO GROUPS:          C
58 C                                                                   C
59 C    GROUP I - DELETE, INSERT, REPLACE                              C
60 C    1-ST CARD   DE1.                                               C
61 C    2-ND CARD   MOS8507D1520                                       C
62 C    1-ST CARD   IN15.                                              C
63 C    2-ND CARD   MOS8507H1600___0100999999999999999999             C
64 C                                999999999999999999999              C
65 C    3-RD CARD   99999999999999999999999999999999999999             C
66 C                                999999999999999999999              C
67 C    1-ST CARD   RE2.                                               C
68 C    2-ND CARD   MOS8507Z1522___0420999999999999999999             C
69 C                                999999999999999999999              C
70 C    3-RD CARD   99999999999999999999999999999999999999             C
71 C                                999999999999999999999              C
72 C    4-TH CARD   MOS8507Z1523___0420999999999999999999             C
73 C                                999999999999999999999              C
74 C    5-TH CARD   99999999999999999999999999999999999999             C
75 C                                999999999999999999999              C
76 C                                                                   C
77 C      THE REAL VALUE (FOLLOWING FUNCTION SYMBOLS) MEANS            C
78 C      THE NUMBER OF RECORDS WHICH WILL BE CORRECT.                 C
79 C      FOR THE <DE> OR <RE> FUNCTIONS THE NUMBER                    C
80 C      OF FOLLOWING CARDS MUST CORRESPOND IT.                       C
81 C      USING <IN1.> FUNCTION THE SINGLE RECORD CAN BE               C
82 C      INSERTED INTO FILE, FOR THE A=REAL(N>1)                      C
83 C      A FEW EMPTY (9999) RECORDS CAN BE INSERTED                   C
84 C      INTO FILE AUTOMATICALLY.                                     C
85 C                                                                   C
86 C      GROUP II  -  MULTIPLY, ADD, SUBSTRACT                        C
87 C      1-ST CARD    MU2.5 (OR) AD1276. (OR) SU570.                  C
88 C      2-ND CARD    MOS8507H1600MOS8508H1500                        C
89 C      3-RD CARD    0025                                            C
90 C      THE REAL VALUE (A) CHARACTERIZES THE PARAMETER               C
91 C      OF FUNCTION FOR THE DATA INTERVAL APPOINTED                  C
92 C      IN THE SECOND CARD. THE THIRD CARD LIMITS THE                C
93 C      NUMBER OF HOURS (OR 2.5-MINUTES) INSIDE RECORD               C
94 C      WHICH MUST BE EDITING (00 - BASE EDITING,                    C
95 C      01-24 - DATA EDITING, 25 - AVERAGE VALUE EDITING).           C
96 C      ACKNOWLEDGEMENTS: AUTHORS THANKS TO                          C
97 C      J.GUPTA FOR PROVIDING REPRINT OF                             C
98 C      PROGRAM DATACK.                                              C
99 CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
100
```

```
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C                                                                 C
C                                                                 C
C     THIS PROGRAM IS DESIGNED TO SEARCH AND CORRECT              C
C     THE ERRORS IN THE STANDARD IAGA FORMAT FILES OF THE         C
C     HOURLY OR 2,5-MINUTE VALUES OF GEOMAGNETIC DATA             C
C     (FORTRAN-4 LANGUAGE,IBM/360(370) COMPATIBLE                 C
C     OPERATIONAL SYSTEM)                                         C
C     THIS PROGRAM WILL NOT FUNCTION IF DATA PRECEEDS             C
C     THE YEAR 1900                                               C
C     INPUT : TAPE OR DISC (LOGICAL UNIT 9).                      C
C     OUTPUT: TAPE OR DISC (LOGICAL UNIT 8).                      C
C     THE READER (LOGICAL UNIT 5) IS ASSIGNED FOR THE             C
C     CARDS INPUT.                                                C
C     THE PRINTER OUTPUT IS SYSTEM ONE,                           C
C     THE PROCESSING OF FORBIDDEN SYMBOLS-REPLACING               C
C     IT BY ZEROS.                                                C
C                                                                 C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

      LOGICAL END,CORECT,INDCTR,OK
      DIMENSION TITLE(10),IKC(3),FG(7),FF(7)
      COMMON IVAL(32),JH,JD,JZ,IPLOT,ERROR,IC,F(7)
      COMMON ILINE(24),IFL
      COMMON /WW/ IW,IPRC,IKNT(3),ICOUNT(3)
      COMMON /IFIXDK/ IREC(32),END,CORECT,FACT
      COMMON /IND/ INDCTR,OK,IERORC
      DATA IERROR/10000/
      DATA BLNK/4H    /,YNO/4H NO /, YES/4H YES/
      DATA HOUR/4H CPE/,TPFM/4H 2.5/
      DATA FG/'(A3,','2I2,','A1,I','2,A2',',4X,',
     *'26I4',')'/
      DATA FF/'(A3,','2I2,','A1,I','2,I2',',4X,',
     *'26I4',')'/
      IERORC=0
      CORECT=.FALSE.
      END=.FALSE.
      INDCTR=.FALSE.
      OK=.TRUE.
      ERROR=BLNK                                                  A
      IPRC=0
      IFL=0
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     TITLE                                                       C
C     JH,JD,JZ - PERMISSIBLE JUMP IN DATA VALUES                  C
C     IRROR - PERMISSIBLE NUMBER OF ERRORS IN THE                 C
C     VERIFIED FILE                                               C
C     IPRINT=YES FOR FULL PRINTOUT OF THE CORRECTED FILE          C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

      READ 150, TITLE,JH,JD,JZ,PRNC,PRNT,IRROR
      IF(TITLE(2).EQ.TPFM) IFL=1
      IF(TITLE(2).NE.TPFM.AND.TITLE(2).NE.HOUR) GO TO 120
      IF (PRNC.EQ.BLNK) PRNC=YNO
      IF (PRNC.EQ.YES) IPRC=1
      IF (PRNT.EQ.BLNK) PRNT=YNO
      IF (IRROR.GT.0) IERROR=IRROR
      PRINT 180, TITLE,JH,JD,JZ,IERROR, PRNT,PRNC
      DO 10 IT=1,7
      IF(IFL.EQ.0) F(IT)=FG(IT)
      IF(IFL.EQ.1) F(IT)=FF(IT)
   10 CONTINUE
      DO 11 IT=1,3
      IKNT(IT)=0
   11 ICOUNT(IT)=0
C     READ FIRST RECORD FROM INPUT FILE
      READ(9,F,END=100) IVAL
   30 CALL PROCES
   40 ICOUNT(IC)=ICOUNT(IC)+1
      IF(ERROR.EQ.BLNK) GOTO 50
      IF(IFL.EQ.0) PRINT 170, IVAL
      IF(IFL.EQ.1) PRINT 190, IVAL
      PRINT 200, ILINE
      IERORC=IERORC+1
   50 IF(IERORC.LE.IERROR) GO TO 60
      PRINT 210, IERORC
      GO TO 90
   60 ERROR=BLNK
      IVECTR=IVAL(4)

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     READ SECOND AND FOLLOWING RECORDS                           C
C     FROM INPUT FILE AND CHECK THE                               C
C     COMPONENT INDEX                                             C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

      READ(9,F,END=100) IVAL
      IF(IVECTR.NE.IVAL(4)) GOTO 30
      CALL PROENT
      GO TO 40
   90 IF (.NOT.CORECT) GO TO 100
      IF (.NOT.END) PRINT 230, (IREC(JO),JO=1,5)
  100 PRINT 220, ICOUNT
      PRINT 240, IKNT
      IF(IFL.EQ.0) PRINT 260, IVAL(4),IVAL(1),
     *IVAL(5),IVAL(3),IVAL(2)
      IF(IFL.EQ.1) PRINT 250, IVAL(4),IVAL(1),
     *IVAL(6),IVAL(5),IVAL(3),IVAL(2)
      END FILE 8
      IF (PRINT.EQ.YNO) GOTO 130
```

```
      REWIND 8
C     PRINTER DUMP OF THE OUTPUT FILE (IF REQUTED)
  110 READ(8,F,END=130) IVAL
      IF(IFL.EQ.0) PRINT 170, IVAL
      IF(IFL.EQ.1) PRINT 190, IVAL
      GO TO 110
  120 PRINT 140
  130 CONTINUE
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THE END OF PROGRAM *GAMMA*                C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
  140 FORMAT(//1X,50('*')//
     *'  *INTERRUPTION* WRITE TRUE HEADER, PLEASE:'//
     *' FILE 2,5 MINUTE... (OR) FILE HOURLY...'/)
  150 FORMAT (10A4/3I4,2A4,I4)
  180 FORMAT (4X,10A4//' MAX. PERMIS. JUMP IN H/X=',
     * I5//' MAX. PERMIS. JUMP IN D/Y=',I5//
     *' MAX. PERMIS. JUMP IN  Z =',I5//
     *' TOTAL ERRORS PERMITTED BEFORE PROGRAM WILL ABO IS'
     *,I6//
     *' THE PRINT OPTION FOR THE OUTPUT FILE IS',A4//
     *' THE PRINT OPTION FOR THE CORRECTION CARDS IS',/)
  170 FORMAT(1X,A3,2I2,A1,I2,A2,4X,26I4)
  190 FORMAT(1X,A3,2I2,A1,2I2,4X,26I4)
  200 FORMAT(1X,20X,24A4)
  210 FORMAT(///' ***THE PERMISSIBLE NUMBER OF ERRORS
     * IN THE FILE = ',I7,' ,PROGRAM WILL ABORT ****')
  220 FORMAT(///' $$ THERE WERE READ ',I6,' RECORDS OF
     * H/X COMPONENT,'
     * ,I6,' RECORDS OF D/Y COMPONENT AND',I6,
     *' RECORDS OF Z COMPONENT $$')
  230 FORMAT(//1X,50('*')//' * FROM DATE ',A3,2I2,A1,2I2,
     *' ALL CORRECTIONS WERE NOT PROCESSED *'//1X,50('*'))
  240 FORMAT(//' $$ THERE WERE WRITTEN',I6,'
     * RECORDS OF H/X COMPONENT,'
     * ,I6,' RECORDS OF D/Y COMPONENT AND',I6,
     *' RECORDS OF Z COMPONENT $$')
  250 FORMAT(//5X,' THE LAST PROCESSED RECORD CONTAINED ',A1
     *' COMP. OF ',A3,' OBS.  FOR THE DATE ',3(I2,1H/),I2,
     *' (HOUR/DAY/MONTH/YEAR)'/)
  260 FORMAT(//5X,' THE LAST PROCESSED RECORD CONTAINED ',A1
     *' COMP. OF ',A3,' OBS.  FOR THE DATE ',2(I2,1H/),I2,
     *' (DAY/MONTH/YEAR)'/)
      STOP
      END
C
C
C
C
```

```
      SUBROUTINE PROCES
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THE MANAGER OF THE VERIFICATION PROCESS          C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

      LOGICAL INDCTR,OK,END
      COMMON IVAL(32),IE(5),IC,F(7),ILINE(24),IFL
      COMMON/IFIXDK/ IREC(32),END
      COMMON /IND/ INDCTR,OK
      COMMON /WW/ IW,IPRC,IKNT(3)
      DATA IDD/1HD/,III/1HI/,IRR/1HR/
    5 CALL KORECT
      IF (END) GO TO 10
      CALL KORENT
      IF (OK.AND.IW.EQ.IDD) GO TO 40
      IF (OK.AND.IW.EQ.III) GO TO 5
      IF (OK.AND.IW.EQ.IRR) GO TO 5
C     THE DATE IS SET ACCODING THE FIRST RECORD
   10 IF(IFL.EQ.0) CALL HOURCK
      IF(IFL.EQ.1) CALL TPFMCK
C     THE COMPONENT INDEX IS SET
      CALL NAMECK
C     CHECK THE DATA ON ABNORMAL JUMPS
      CALL JUMPCK(1)
C     CHECK THE AVERAGE VALUES
      CALL MEANCK(1)
      GO TO 30
      ENTRY PROENT
   15 CALL KORECT
      IF (END) GO TO 20
      CALL KORENT
      IF (OK.AND.IW.EQ.IDD) GO TO 40
      IF (OK.AND.IW.EQ.III) GO TO 15
      IF (OK.AND.IW.EQ.IRR) GO TO 15
C     ARE THE DATES SEQUENTAL?
   20 IF(IFL.EQ.0) CALL HOURCK
      IF(IFL.EQ.1) CALL TPFMCK
C     CHECK THE MNEMONIC NAME OF THE OBSERVATORY
      CALL NAMENT
C     CHECK THE DATA ON ABNORMAL JUMPS
      CALL JUMPCK(2)
C     DO THE CURRENT RECORD DUBLICATE THE PREVIOUS?
      CALL MEANCK(2)
C     WRITE THE CURRENT RECORD INTO OUTPUT FILE
   30 WRITE(8,F) IVAL
      IKNT(IC)=IKNT(IC)+1
   40 CONTINUE
      RETURN
      END
C
```

```
      SUBROUTINE KORECT
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THIS SUBROUTINE INPUTS AND                              C
C     ANALYSES THE CORRECTION CARDS                           C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

      LOGICAL END,CORRCT,INDCTR,OK
      COMMON IVAL(32),JC(6),F(7),ILINE(24),IFL
      COMMON /WW/ IW,IPRC
      COMMON /DD/ IDATE(5)
      COMMON /IFIXDK/IREC(32),END,CORRCT,FACT
      COMMON /IND/ INDCTR,OK
      DATA IBLNK/4H    /
      DATA IEE/1HE/,INN/1HN/,IDD/1HD/,III/1HI/
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     IF THE LOGICAL VARIABLE OK=.TRUE.                       C
C     THIS SUBROUTINE WILL READ THE NEXT TWO OR TREE          C
C     CORRECTION CARDS FROM FT05F001                          C
C     THE FIRST CARD CONTAINES THE CORRECT DIRECTIVE,         C
C     THE SECOND- THE SEARCH KEY ON THE                       C
C     CORRECTED RECORD DATE                                   C
C     THE THIRD- COMPLETE THE LOGICAL RECORD                  C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      IF (.NOT.OK) RETURN
      READ (5,100,END=70) IW,JW,FACT
      IF(IPRC.GT.0) PRINT 140,IW,JW,FACT
      IF (JW.LT.IEE.OR.JW.GT.INN) GOTO 30
      IF(IFL.EQ.0) READ(5,115,END=70) (IREC(I),I=1,17)
      IF(IFL.EQ.1) READ(5,110,END=70) (IREC(I),I=1,17)
      IF (IW.NE.IDD) GO TO 20
      IF(IPRC.EQ.0) GO TO 55
      IF(IFL.EQ.0) PRINT 175,(IREC(I),I=1,5)
      IF(IFL.EQ.1) PRINT 170,(IREC(I),I=1,6)
      GO TO 55
   20 READ(5,120,END=70) (IREC(I),I=18,32)
      GO TO 60
   30 READ(5,130,END=70) (IREC(I),I=1,14)
   40 DO 50 I=15,32
      IREC(I)=IBLNK
   50 CONTINUE
      IF(IPRC.GT.0) PRINT 150,(IREC(I),I=1,14)
      GO TO 55
   60 IF(IPRC.EQ.0) GO TO 55
      IF(IFL.EQ.0) PRINT 165, IREC
      IF(IFL.EQ.1) PRINT 160, IREC
   55 DO 65 IO=1,5
      IDATE(IO)=IREC(IO+1)
   65 CONTINUE
      IF(IW.EQ.III.AND.IFL.EQ.0) CALL HOUENT
      IF(IW.EQ.III.AND.IFL.EQ.1) CALL TPFENT
      CORRCT=.TRUE.
      OK=.FALSE.
      RETURN
   70 CONTINUE
      END=.TRUE.
      OK=.FALSE.
      RETURN
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     ADDITIONAL ENTRY FOR BRANCHING ACCORDDING               C
C     TO CORRION FUNCTIONS                                    C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      ENTRY KORENT
      IF (JW.LT.IEE.OR.JW.GT.INN) GOTO 90
      CALL DIRFUN
      RETURN
   90 CALL MASFUN
      RETURN
  100 FORMAT(2A1,F10.0)
  110 FORMAT (A3,2I2,A1,2I2,4X,11I4)
  115 FORMAT(A3,2I2,A1,I2,A2,4X,11I4)
  120 FORMAT (15I4)
  130 FORMAT (A3,2I2,A1,2I2,A3,2I2,A1,2I2/2I2)
  140 FORMAT(/' $$$$ CORRECTION CARDS PRINTOUT $$$$'
     *1X,2A1,8X,F10.0)
  150 FORMAT (1X,2(A3,2I2,A1,2I2),2I2)
  160 FORMAT (1X,A3,2I2,A1,2I2,4X,26I4)
  165 FORMAT(1X,A3,2I2,A1,I2,A2,4X,26I4)
  170 FORMAT (1X,A3,2I2,A1,2I2)
  175 FORMAT(1X,A3,2I2,A1,I2)
      END
C
      SUBROUTINE HOURCK
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THE MANAGER OF THE SEQUENCE DATE VERIFICATION           C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      DIMENSION MO(12)
      COMMON IVAL(32),JC(3),IPLOT
      COMMON /DD/ IDATE(4)
      DATA MO/31,28,31,30,31,30,31,31,30,31,30,31/
      DATA KYR/0/
      IPLOT=0
C     CHECKING OF THE YEAR
   10 IF (IVAL(2).EQ.KYR) GO TO 30
      MO(2)=28
      ILN=IVAL(2)+1900
      IF (ILN.EQ.(ILN/4)*4) MO(2)=29
      IF(KYR.EQ.0)GO TO61
C     CHECKING OF THE MONTH
   20 IF (KMO.EQ.12.AND.KDAY.EQ.31.AND.IVAL(2).EQ.
     *KYR+1.AND.IVAL(3).EQ.1.AND.IVAL(5).EQ.1) GOTO 61
```

```
   30 IF (IVAL(3).EQ.KMO) GO TO 40
      IF (KDAY.EQ.MO(IVAL(3)-1).AND.IVAL(3).EQ.KM
     *O+1.AND.IVAL(5).EQ.1) GO TO 61
      GO TO 50
C     CHECKING OF THE DAY
   40 IF (IVAL(5).EQ.KDAY+1) GO TO 60
   50 I1=KYR*10000+KMO*100+KDAY
      I2=IVAL(2)*10000+IVAL(3)*100+IVAL(5)
C     THE SEQUENCE OF THE DATES IS NOT CORRECT
      IF(I1.LT.I2) PRINT 70,KDAY,KMO,KYR,
     *IVAL(5),IVAL(3),IVAL(2),IVAL(4)
      IF(I1.EQ.I2) PRINT 80,KDAY,KMO,KYR,
     *IVAL(5),IVAL(3),IVAL(2),IVAL(4)
      IF(KDAY.EQ.MO(IVAL(3)).AND.IVAL(3).EQ.KMO.
     *AND.IVAL(5).EQ.1) GO TO61
      IF(I1.GT.I2) PRINT 90,KDAY,KMO,KYR,
     *IVAL(5),IVAL(3),IVAL(2),IVAL(4)
      GO TO 60
   61 IPLOT=1
   60 KDAY=IVAL(5)
      KMO=IVAL(3)
      KYR=IVAL(2)
      RETURN
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THE ADDITIONAL ENTRY FOR THE PREVIOUS RECORD    C
C     DATA CALCULATION                                C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      ENTRY HOUENT
      IF (IDATE(4).EQ.1) GO TO 62
      IDATE(4)=IDATE(4)-1
      RETURN
   62 IF (IDATE(2).EQ.1) GO TO 64
      IDATE(2)=IDATE(2)-1
      IDATE(4)=MO(IDATE(2))
      IF(IDATE(2).NE.2) RETURN
      ILN=IDATE(1)+1900
      IF (ILN.EQ.(ILN/4)*4) IDATE(4)=29
      RETURN
   64 IDATE(1)=IDATE(1)-1
      IDATE(2)=12
      IDATE(4)=31
      RETURN
      ENTRY HOUINT
      MO(2)=28
      ILN=IVAL(2)+1900
      IF(ILN.EQ.(ILN/4)*4) MO(2)=29
      KYR=IVAL(2)
      KMO=IVAL(3)
      KDAY=IVAL(5)
      RETURN
   70 FORMAT(/' **** DATA MISSING BETWEEN ****'/10X,
     *2(I2,1H/),
     * I2,5H AND ,2(I2,1H/),I2,'   FOR COMP. ',A1)
   80 FORMAT(/' **** RECORD IS REPEATED ****'/10X,
     *2(I2,1H/),
     * I2,5H AND ,2(I2,1H/),I2,'   FOR COMP. ',A1)
   90 FORMAT(/' **** DATE IS INCORRECT ****'/10X,
     *2(I2,1H/),
     * I2,5H AND ,2(I2,1H/),I2,'   FOR COMP. ',A1)
      END
C
      SUBROUTINE TPFMCK
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THE MANAGER OF THE SEQUENCE HOURS               C
C     VERIFICATION                                    C
C     (ANALOGOUSLY TO THE SUBROUTINE HOURCK)          C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      DIMENSION MO(12)
      COMMON IVAL(32),JC(3),IPLOT
      COMMON /DD/ IDATE(5)
      DATA MO/31,28,31,30,31,30,31,31,30,31,30,31/
      DATA KYR/0/
      IPLOT=0
   10 IF (IVAL(2).EQ.KYR) GO TO 30
      MO(2)=28
      ILN=IVAL(2)+1900
      IF (ILN.EQ.(ILN/4)*4) MO(2)=29
      IF(KYR.EQ.0)GO TO61
   20 IF(KMO.EQ.12.AND.KDAY.EQ.31.AND.KHR.EQ.23.AND.
     *IVAL(2).EQ.KYR+1.AND.IVAL(3).EQ.1.AND.
     *IVAL(5).EQ.1.AND.IVAL(6).EQ.0) GOTO 61
   30 IF (IVAL(3).EQ.KMO) GO TO 40
      IF(KDAY.EQ.MO(IVAL(3)-1).AND.IVAL(3).EQ.KMO+1.AND.
     *KHR.EQ.23.AND.IVAL(5).EQ.1.AND.IVAL(6).EQ.0) GOTO 61
      GO TO 50
   40 IF (IVAL(5).EQ.KDAY) GO TO 44
      IF(IVAL(5).EQ.KDAY+1.AND.IVAL(6).EQ.0.AND.
     *KHR.EQ.23) GOTO 65
      GO TO 50
   44 IF (IVAL(6).EQ.KHR+1) GO TO 60
   50 I1=KYR*1000000+KMO*10000+KDAY*100+KHR
      I2=IVAL(2)*1000000+IVAL(3)*10000+IVAL(5)*100+IVAL(6)
      IF (I1.LT.I2) PRINT 70,KHR,KDAY,KMO,KYR,IVAL(6),
     *IVAL(5),IVAL(3),IVAL(2),IVAL(4)
      IF (I1.EQ.I2) PRINT 80,KHR,KDAY,KMO,KYR,IVAL(6),
     *IVAL(5),IVAL(3),IVAL(2),IVAL(4)
      IF(KDAY.EQ.MO(IVAL(3)).AND.IVAL(3).EQ.KMO.
     *AND.IVAL(5).EQ.1.AND.IVAL(6).EQ.0) GO TO 61
      IF (I1.GT.I2) PRINT 90,KHR,KDAY,KMO,KYR,IVAL(6),
     *IVAL(5),IVAL(3),IVAL(2),IVAL(4)
```

```
      GO TO 60
   65 IF(IVAL(5).GT.MO(IVAL(3))) PRINT 90, KHR,KDAY,KMO,KYR,
     *IVAL(6),IVAL(5),IVAL(3),IVAL(2),IVAL(4)
   61 IPLOT=1
   60 KDAY=IVAL(5)
      KHR=IVAL(6)
      KMO=IVAL(3)
      KYR=IVAL(2)
      RETURN
      ENTRY TPFENT
      IF (IDATE(5).EQ.0) GO TO 63
      IDATE(5)=IDATE(5)-1
      RETURN
   63 IF (IDATE(4).EQ.1) GO TO 62
      IDATE(4)=IDATE(4)-1
      IDATE(5)=23
      RETURN
   62 IF (IDATE(2).EQ.1) GO TO 64
      IDATE(2)=IDATE(2)-1
      IDATE(4)=MO(IDATE(2))
      IDATE(5)=23
      IF (IDATE(2).NE.2) RETURN
      ILN=IDATE(1)+1900
      IF (ILN.EQ.(ILN/4)*4) IDATE(4)=29
      RETURN
   64 IDATE(1)=IDATE(1)-1
      IDATE(2)=12
      IDATE(4)=31
      IDATE(5)=23
      RETURN
      ENTRY TPFINT
      MO(2)=28
      ILN=IVAL(2)+1900
      IF(ILN.EQ.(ILN/4)*4) MO(2)=29
      KYR=IVAL(2)
      KMO=IVAL(3)
      KDAY=IVAL(5)
      KHR=IVAL(6)
      RETURN
   70 FORMAT(' **** DATA MISSING BETWEEN ****'/10X,3(I2,1H/)
     * I2,5H AND ,3(I2,1H/),I2,'   FOR COMP. ',A1)
   80 FORMAT(/' **** RECORD IS REPEATED ****'/10X,3(I2,1H/),
     * I2,5H AND ,3(I2,1H/),I2,'   FOR COMP. ',A1)
   90 FORMAT(/' **** DATE IS INCORRECT ****'/10X,3(I2,1H/),
     * I2,5H AND ,3(I2,1H/),I2,'   FOR COMP. ',A1)
      END
C
      SUBROUTINE NAMECK
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THE MANAGER OF THE COMPONENT INDEX                  C
C     AND MNEMONIC OBSERVATORY CODE VERIFICATION          C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      LOGICAL BEGIN
      DIMENSION IVECTR(3,4)
      COMMON IVAL(32),JC(3),IPLOT,ERROR,IC,F(7),ILINE(24),IF
      DATA BEGIN/.TRUE./, YES/2H A/
C     THE ARRAY OF PERMISSIBLE INDICES OF COMPONENTS
      DATA IVECTR/1H3,1H1,1H7,1H5,1H6,1H7,
     *1HH,1HD,1HZ,1HX,1HY,1HZ/
      IF(BEGIN)GOTO 10
      IF(IPLOT.EQ.1) GO TO 20
      ERROR=YES
      PRINT  60, KP,IVAL(4)
      GOTO 20
   10 IF(IFL.EQ.0) PRINT 75,IVAL(4),IVAL(1),
     *IVAL(5),IVAL(3),IVAL(2)
      IF(IFL.EQ.1) PRINT 70,IVAL(4),IVAL(1),
     *IVAL(6),IVAL(5),IVAL(3),IVAL(2)
      KOD=IVAL(1)
   20 DO 40 M=1,3
      DO 30 N=1,4
      IF (IVAL(4).NE.IVECTR(M,N)) GOTO 30
      IC=M
      GOTO 50
   30 CONTINUE
   40 CONTINUE
      ERROR=YES
      PRINT 80, IVAL(4)
   50 CONTINUE
      BEGIN=.FALSE.
      KP=IVAL(4)
C     THE CHECKING OF THE OBSERVATORY CODE
      ENTRY NAMENT
      IF (KOD.EQ.IVAL(1)) RETURN
      ERROR=YES
      PRINT 90, KOD,IVAL(1)
      KOD=IVAL(1)
      RETURN
   60 FORMAT(/' **** THE CURRENT COMPONENT ',A1,
     *' IS MIXED WITH COMP. ',A1,5H ****)
   70 FORMAT (//5X,' THE FIRST RECORD CONTAINES ',A1,' COMP.
     *A3,'  FOR THE DATE ',3(I2,1H/),I2,' (HOUR/DAY/MONTH/YE
   75 FORMAT(//5X,' THE FIRST RECORD CONTAINES ',A1,' COMP.
     *A3,' FOR THE DATE ',2(I2,1H/),I2,' (DAY/MONTH/YEAR)'/)
   80 FORMAT(/' **** INDEX OF COMP. ',A1,
     *' IS NOT RECOGNIZABLE ****')
   90 FORMAT(' **** THE MNEMONIC CODE OF THE OBS.
     *WAS CHANGED FROM ', A3,6H  TO  ,A3,6H  ****)
      END
C
```

```
      SUBROUTINE JUMPCK(I)
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THIS SUBROUTINE CHECKS DATA ON ABNORMAL JUMPS    C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      LOGICAL START
      COMMON IVAL(32),JJ(3),IPLOT,ERROR,IC,F(7),ILINE(24),IF
      DATA IBLNK/4H    /,IFILL/4H----/
      DATA IDD/1HD/,ID1/1H1/,YES/3HYES/
      NN=8
      NO=0
      DO 10 MM=1,24
   10 ILINE(MM)=IBLNK
      GO TO (20,30),I
   20 START=.TRUE.
   30 IF (.NOT.START) GO TO 50
      IFCT=100
      IF (IVAL(4).EQ.IDD.OR.IVAL(4).EQ.ID1) IFCT=600
      ICHKB=IVAL(7)*IFCT
   70 N8=NN
      DO 40 J=N8,31
      IF (IVAL(J).EQ.9999) GO TO 40
      START=.FALSE.
      NN=J+1
      ICHK=IVAL(7)+ICHKB
      GO TO 50
   40 CONTINUE
      GO TO 90
   50 IF(NN.GE.31) GO TO 90
      DO 80 J=NN,31
      NN=J
      IF (IVAL(J).EQ.9999) GO TO 70
      IVL=IVAL(J)+ICHKB
      IF(IABS(IVL-ICHK).LE.JJ(IC)) GOTO 60
      ERROR=YES
      NO=1
      ILINE(J-7)=IFILL
      IF(ILINE(1).NE.IBLNK) IOLD=ICHK-ICHKB
   60 ICHK=IVL
   80 CONTINUE
   90 IF (NO.NE.0) PRINT 100
      IF (NO.NE.0.AND.ILINE(1).NE.IBLNK) PRINT 110,ICHKB,IOL
      RETURN
  100 FORMAT(/'  **** EXCESSIVE CHANGE IN HOURLY VALUES ****
  110 FORMAT(7X,' (THE BASE OF THE PREVIOUS RECORD = ',I6,
     *', THE PAST VALUE OF THE COMPONENT =',I4,')')
      END
C
      SUBROUTINE MEANCK(I)
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THIS SUBROUTINE CHECKS THE AVERAGE VALUE   C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      DIMENSION IOLD(31)
      COMMON IVAL(32),JC(3),IPLOT,ERROR
      DATA YES/3HYES/
      GOTO (10,30), I
   10 IK=0
      ISM=0
      DO 20 J=8,31
      IOLD(J)=IVAL(J)
      IF (IVAL(J).EQ.9999) GOTO 20
      ISM=ISM+IVAL(J)
      IK=IK+1
   20 CONTINUE
      GOTO 50
   30 IC=0
      DO 40 J=8,31
      IF (IVAL(J).EQ.9999) IC=IC+1
      IF (IOLD(J).NE.IVAL(J)) GOTO 10
   40 CONTINUE
      IF (IC.EQ.24) GOTO 10
      PRINT 70
      ERROR=YES
      GOTO 10
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     VERIFY THE AVERAGE VALUE                          C
C     (IF NO MEAN EXISTS                                C
C     ONE WILL BE CREATED AND PUT INTO OUTPUT RECORD)C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

   50 IF(IVAL(32).EQ.0.OR.IVAL(32).EQ.9999.OR.IK.LE.0)
     * GO TO 60
      IDIFF=ISM/IK-IVAL(32)
      IF (IABS(IDIFF).LE.2) RETURN
      PRINT 80
      ERROR=YES
      RETURN
   60 IVAL(32)=9999
      IF (IK.GE.1) IVAL(32)=ISM/IK
      RETURN
   70 FORMAT(/'  **** THE PREVIOUS RECORD IS REPEATED ****')
   80 FORMAT(/'  **** INCORRECT AVERAGE VALUE ****')
      END
C
      SUBROUTINE DIRFUN
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THIS SUBROUTINE WILL TAKE CARE OF             C
C     ALL DELETE,INSERT AND REPLACE DIRECTIVES      C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      LOGICAL INDCTR,OK
      DIMENSION MO(12)
```

```
      COMMON IVAL(32),JC(3),IPLOT,ERROR,IC,F(7),ILN(24),IFL
      COMMON /IFIXDK/ IREC(32),END,CORRCT,FACT
      COMMON /DD/ IDATE(5)
      COMMON /WW/ IW,IPRC,IKNT(3),ICNT(3)
      COMMON /IND/ INDCTR,OK,IRROR
      DATA MO/31,28,31,30,31,30,31,31,30,31,30,31/
      DATA IDD/1HD/,IRR/1HR/,III/1HI/,BLNK/4H    /
      IF (IREC(1).NE.IVAL(1)) RETURN
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     CHECK THE RECORDS OF A DATE COINCIDENCE  C
C     WITH A CORRECTING CARD                   C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      DO 10 IO=2,6
      IF (IDATE(IO-1).NE.IVAL(IO)) RETURN
   10 CONTINUE
      IFACT=FACT+0.5
      OK=.TRUE.
C     IS IT A REPLACE REQUESTED?
      IF (IW.EQ.IRR) GO TO 20
C     DELETE OLD RECORD
      IF (IW.EQ.IDD) GOTO 40
C     IS IT A INSERT REQUESTED?
      IF (IW.EQ.III) GO TO 50
C     UNKNOWN DIRECTIVE
      PRINT  80,   (IREC(IO),IO=1,5)
      RETURN
C     REPLACE OLD RECORD
   20 DO 30 JX=1,32
      IVAL(JX)=IREC(JX)
   30 CONTINUE
      IF (IFACT.EQ.1) RETURN
      DO 35 IX=2,IFACT
      WRITE(8,F) IVAL
      READ(9,F) IVAL
      READ 90, IVAL
      IF(IFL.EQ.0) CALL HOUINT
      IF(IFL.EQ.1) CALL TPFINT
      IF(IFL.EQ.0) CALL HOURCK
      IF(IFL.EQ.1) CALL TPFMCK
      CALL NAMENT
      CALL JUMPCK(2)
      CALL MEANCK(2)
   35 CONTINUE
      IKNT(IC)=IKNT(IC)+IFACT-1
      ICNT(IC)=ICNT(IC)+IFACT-1
      RETURN
   40 IF (IFACT.EQ.1) RETURN
      DO 45 IX=2,IFACT
      READ(9,F) IVAL
   45 CONTINUE
      ICNT(IC)=ICNT(IC)+IFACT-1
      RETURN
C     INPUT RECORD
   50 IF(IFL.EQ.0) CALL HOURCK
      IF(IFL.EQ.1) CALL TPFMCK
      CALL NAMENT
      CALL JUMPCK(2)
      CALL MEANCK(2)
      WRITE(8,F) IVAL
      IKNT(IC)=IKNT(IC)+1
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THE PRINT OF ERRONEOUS RECORD AFTER  C
C     CORRESPONDING INFORMATION            C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      PRINT 100, IVAL
      PRINT 110, ILN
      ERROR=BLNK
      IRROR=IRROR+1
   55 DO 60 JX=1,32
      IVAL(JX)=IREC(JX)
   60 CONTINUE
      IF (IFACT.EQ.1) RETURN
      MO(2)=28
      IYR=IVAL(2)+1900
      DO 70 IX=2,IFACT
      WRITE(8,F) IVAL
      IF(IX.EQ.IFACT.AND.IFL.EQ.0) CALL HOUINT
      IF(IX.EQ.IFACT.AND.IFL.EQ.1) CALL TPFINT
      IF(IFL.EQ.0) GO TO 65
      IVAL(6)=IVAL(6)+1
      IF (IVAL(6).LE.23) GOTO 70
      IVAL(6)=0
   65 IVAL(5)=IVAL(5)+1
      IF (IYR.EQ.(IYR/4)*4) MO(2)=29
      IF (IVAL(5).LE.MO(IVAL(3))) GOTO 70
      IVAL(5)=1
      IVAL(3)=IVAL(3)+1
      IF (IVAL(3).LE.12) GOTO 70
      IVAL(3)=1
      IVAL(2)=IVAL(2)+1
   70 CONTINUE
      IKNT(IC)=IKNT(IC)+IFACT-1
      RETURN
   80 FORMAT(/' **** UNKNOWN DATA UPDATE DIRECTIVE ( ',
     *A3,2I2,A1,2I2,7H ) ****)
   90 FORMAT (A3,2I2,A1,2I2,4X,16I4/10I4)
  100 FORMAT (1X,A3,2I2,A1,2I2,4X,26I4)
  110 FORMAT(1X,20X,24A4)
      END
C
```

```
      SUBROUTINE MASFUN
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C     THIS SUBROUTINE WILL ADD,SUBSTRACT OR MULTIPLY C
C     A COMMON FACTOR TO SPECIFIED VALUES           C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
      LOGICAL INDCTR,OK
      COMMON IVAL(32)
      COMMON /IFIXDK/ IREC(32),END,CORRCT,FACT
      COMMON /WW/IW
      COMMON /IND/ INDCTR,OK
      DATA ISS/1HS/, IMM/1HM/, NS/1/
      IF (NS.EQ.0) GOTO 30
      IF (INDCTR) GOTO 20
      DO 10 JX=1,6
      IF (IREC(JX).NE.IVAL(JX)) RETURN
   10 CONTINUE
      INDCTR=.TRUE.
      NS=IREC(13)
      ISET=0
      IFACT=FACT+0.5
C     IS THE NUMBER SUBSTRACTED?
      IF(IW.EQ.ISS) IFACT=-IFACT
C     IS THE DATA MULTIPLIED?
      IF (IW.EQ.IMM) ISET=1
      GOTO 30
   20 NS=1
   30 IF (IREC(7).NE.IVAL(1)) GO TO 50
      DO 40 JX=2,6
      IF (IREC(JX+6).NE.IVAL(JX)) GO TO 50
   40 CONTINUE
      INDCTR=.FALSE.
      OK=.TRUE.
      NF=IREC(14)
      GOTO 60
   50 NF=25
   60 IF (ISET.GE.1) GOTO 80
      IF (NS.EQ.0) GO TO 100
C     ADD THE NUMBER
      DO 70 I=NS,NF
      IF (IVAL(I+7).EQ.9999) GO TO 70
      IVAL(I+7)=IVAL(I+7)+IFACT
   70 CONTINUE
      GO TO 110
  100 IVAL(7)=IVAL(7)+IFACT
      IF (OK) NS=1
  110 RETURN
   80 IF (NS.EQ.0) GO TO 120
C     MULTIPLY THE NUMBER
      DO 90 I=NS,NF
      IF (IVAL(I+7).EQ.9999) GO TO 90
      IVAL(I+7)=FLOAT(IVAL(I+7))*FACT+0.5
   90 CONTINUE
      GO TO 130
  120 IVAL(7)=FLOAT(IVAL(7))*FACT+0.5
      IF (OK) NS=1
  130 RETURN
      END
```

Table 13 GEOMAGNETIC HOURLY VALUE MAPOUT PROGRAM

```
 1 ************************************************************
 2 *                                                          *
 3 *       PROGRAM :      MAPOUT                              *
 4 *                                                          *
 5 *       WRITTEN BY:    CARL ABSTON                         *
 6 *                      WORLD DATA CENTER-A                 *
 7 *                      BOULDER, COLORADO                   *
 8 *                                                          *
 9 *       LANGUAGE:      COBOL-74                            *
10 *                                                          *
11 *       COMPUTER:      DATA GENERAL ECLIPSE SERIES         *
12 ************************************************************
13
14 ************************************************************
15 *                                                          *
16 *   THE PURPOSE OF THIS PROGRAM IS TO GIVE A SUMMARIZED    *
17 *   PRINTOUT OF THE CONTENTS OF A TAPE CONTAINING          *
18 *   2.5-MIN GEOMAGNETIC OR GEOMAGNETIC HOURLY VALUES       *
19 *   THE OUTPUT IS ON THE PRINTER.  INCLUDED IN THE         *
20 *   SUMMARY IS                                             *
21 *   (1)---THE DATE WHEN THE MAPOUT (PRINTOUT) WAS MADE     *
22 *   (2)---THE FIRST LOGICAL RECORD ON THE TAPE             *
23 *   (3)---A TABLE SHOWING THE OBSERVATORIES DATES          *
24 *   ELEMENTS CONTAINED ON THE TAPE                         *
25 *   (4)---THE TOTAL NUMBER OF LOGICAL RECORDS ON THE       *
26 *   TAPE                                                   *
27 *                                                          *
28 ************************************************************
29
30 IDENTIFICATION DIVISION.
31 PROGRAM-ID.
32     MAPOUT.
33 AUTHOR.
34     CARL ABSTON.
35 ENVIRONMENT DIVISION.
36 CONFIGURATION SECTION.
37 SOURCE-COMPUTE
38     ECLIPSE.
39 OBJECT-COMPUTER.
40     ECLIPSE.
41 INPUT-OUTPUT SECTION.
42 FILE-CONTROL
43     SELECT INA20 ASSIGN TO TAPE10
44     RESERVE AREAS.
45     SELECT INE20 ASSIGN TO TAPE10
46     RESERVE AREAS.
47     SELECT INA40 ASSIGN TO TAPE10
48     RESERVE 4 AREAS
49     FILE STATUS IS FILE-STATUS.
50     SELECT INE40 ASSIGN TO TAPE10
51     RESERVE 4 AREAS.
52     SELECT PRINTFILE ASSIGN TO PRINTER TAPE41.
53     SELECT ARCHIVE-FILE ASSIGN TO TAPE40.
54     SELECT SEQ-FILE ASSIGN TO 'SEQFILE'.
55 DATA DIVISION.
56 FILE SECTION.
57 FD SEQ-FILE
58     LABEL RECORDS ARE OMITTED
59     DATA RECORD IS SEQ-RECORD.
60 01 SEQ-RECORD PIC X(2200).
61 FD ARCHIVE-FILE
62     LABEL RECORDS ARE OMITTED
63     DATA RECORD IS ARCHIVE-RECORD.
64 01 ARCHIVE-RECORD.
65     02 ATYPE PIC XX.
66     02 ADATE PIC X(6).
67     02 ATAPE PIC X(6).
68     02 AFILE PIC 999.
69     02 ABTAPE PIC X(6).
70     02 ADATA PIC X(133).
71     02 ACOUNT PIC 9(6).
72 FD  INA20
73     BLOCK CONTAINS 20 RECORDS
74     LABEL RECORDS ARE OMITTED
75     DATA RECORD IS INA20-RECORD.
76 01 INA20-RECORD.
77     02 INA20-13 PIC X(13).
78     02 FILLER PIC X(107).
79 FD  INA40
80     BLOCK CONTAINS 40 RECORDS
81     LABEL RECORDS ARE OMITTED
82     DATA RECORD IS INA40-RECORD.
83 01 INA40-RECORD.
84     02 INA40-13 PIC X(13).
85     02 FILLER PIC X(107).
86 FD  INE20
87     BLOCK CONTAINS 20 RECORDS
88     LABEL RECORDS ARE OMITTED
89     DATA RECORD IS INE20-RECORD
90     CODE-SET IS EBCDIC.
91 01 INE20-RECORD.
92     02 INE20-13 PIC X(13).
93     02 FILLER PIC X(107).
94 FD  INE40
95     BLOCK CONTAINS 40 RECORDS
96     LABEL RECORDS ARE OMITTED
97     DATA RECORD IS INE40-RECORD
98     CODE-SET IS EBCDIC.
99 01 INE40-RECORD.
100    02 INE40-13 PIC X(13).
```

```
101      02 FILLER PIC X(107).
102  FD  PRINTFILE
103      LABEL  RECORDS ARE OMITTED
104      DATA  RECORD IS PRINT-LINE-ALC.
105  01      PRINT-LINE-ALC.
106      02 PRINT-LINE.
107        03 FILLER PIC X(120).
108        03 PCOUNT PIC ---------9.
109        03 PEND REDEFINES PCOUNT PIC  X(10).
110        03 FILLER PIC X(6).
111  WORKING-STORAGE SECTION.
112  01  INCOMING-RECORD.
113      03 CHECK-AREA.
114          04  FULL-HEADER-STORE.
115            05 OBSYRMOEDA.
116              06 OBSYRMO.
117                    07 OBSYR.
118                       08  OBSM  PIC  XXX.
119                       08  YRM   PIC  XX.
120                    07 MOM       PIC  XX.
121                    07 MON REDEFINES  MOM PIC  99.
122                06  ELE   PIC  X.
123                06  DAM   PIC XX.
124                06  DAN  REDEFINES  DAM  PIC  99.
125              05  HRM PIC  XX.
126        04 COUNTX PIC X.
127      03  FILLER  PIC  X(107).
128  01 FIRST-RECORD REDEFINES INCOMING-RECORD.
129      02 REELX PIC X(4).
130      02 FILLER PIC X(6).
131      02 HOURLY-VALUE PIC XX.
132      02 MM-TV-VALUE PIC X.
133      02 FILLER PIC X(107).
134  01 INC-1 REDEFINES INCOMING-RECORD.
135      02 FILLER PIC X(14).
136      02 CC-15 PIC X.
137      02 FILLER PIC X.
138      02 CC-17-20 PIC XXXX.
139      02 FILLER PIC X(100).
140  01 XX PIC X.
141  01 AATAPE PIC X.
142  01 OBSMM PIC X(3).
143  01 DAMM PIC XX.
144  01 DAMH PIC XX.
145  01 ELA PIC X.
146  01 PRINT-COUNT PIC S9(6) COMP VALUE 0.
147  01 INCOUNT PIC 9(6) VALUE 0.
148  01 SUB-W PIC S9(10) COMP VALUE 0.
149  01 INCR PIC S9(4) COMP VALUE 0.
150  01 LOOP-CONTROLX PIC S9(4) COMP VALUE 0.
151  01 SUBJ PIC S9(4) COMP VALUE 0.
152  01 SUBL PIC S9(4) COMP VALUE 1.
153  01 TCOUNT PIC 9(8) VALUE 0.
154  01 HOBS PIC XXX.
155  01 HDATE PIC X(6).
156  01 HTAPE PIC X(6).
157  01 HBTAPE PIC X(6).
158  01 TAPE40 PIC X(20).
159  01 TAPE41 PIC X(20).
160  01 TAPE10.
161      02 FILLER PIC X(7).
162      02 TN.
163        03 TN1 PIC X.
164        03 TN2 PIC X.
165        03 TN3 PIC X.
166      02 TNN REDEFINES TN PIC 999.
167  01 INCREMENT PIC S9(4) COMP VALUE 0.
168  01 IPL-DATE.
169      02 IPL-YR PIC XX.
170      02 IPL-MO PIC XX.
171      02 IPL-DA PIC XX.
172  01 HEADERB.
173          03  FILLER  PIC X(44)  VALUE
174      'OBSYRMO ***** ***** ***** ***** ***** ******'.
175          03  FILLER  PIC X(42)  VALUE
176          '      ***** ***** ***** ***** ***** ******'.
177          03  FILLER  PIC X(42)  VALUE
178          '      ***** ***** ***** ***** ***** ******'.
179  01 HEADERA.
180          03  FILLER  PIC  X(44) VALUE
181      '                D-X-F-T  VALUES                '.
182          03  FILLER  PIC  X(44) VALUE
183      '                 H-Y-I   VALUES                '.
184          03  FILLER  PIC  X(44) VALUE
185      '                    Z VALUES                   '.
186  01 DATA-LINEA.
187          03  D-L-OBSYRMO     PIC X(7).
188          03  FILLER          PIC X.
189          03  DATA-POSD OCCURS  39 TIMES  PIC X.
190          03  FILLER  PIC  X(3).
191          03  DATA-POSH OCCURS  39 TIMES  PIC X.
192          03  FILLER  PIC  X(3).
193          03  DATA-POSZ OCCURS  39 TIMES  PIC X.
194  01 DATA-LINEB.
195          03  D-L-OBSYRMO-B   PIC X(7).
196          03  FILLER          PIC X.
197          03  DATA-POST  OCCURS 39 TIMES  PIC X.
198  01      NAME-LINE.
199          03 FILLER  PIC  X(57) VALUE  SPACE.
200          03 OBS-NL  PIC  XXX.
```

```
           03 FILLER  PIC  XXX  VALUE  ' = '.
           03 OBS-NAME  PIC X(18).
01         OVERFLOW-ALC  PIC X.
01         J-B   PIC X(41)   VALUE
    'JOB BEGIN MAPOUT 2.5-MIN OR HOURLY VALUES'.
01         J-A   PIC X(23)   VALUE
    'JOB ABORT MAP-OUT  '.
01         01-STORAGE.
    02  MESS-LINE.
           03  FILLER      PIC  X(51).
           03  MESS        PIC  X(30).
    02 DUPLICATE-COUNT PIC S9(4) COMP VALUE 0.
    02 LINE-COUNT PIC S9(4) COMP VALUE 0.
    02  HV-MESS.
           03  FILLER  PIC  X(48)  VALUE SPACE.
           03  FILLER  PIC  X(37)  VALUE
    'H O U R L Y   V A L U E   M A P O U T'.
           03  FILLER  PIC  X(48)  VALUE  SPACE.
    02  TV-MESS.
           03  FILLER  PIC  X(45)  VALUE SPACE.
           03  FILLER  PIC  X(43)  VALUE
    'T A B U L A R   V A L U E       M A P O U T'.
           03  FILLER  PIC  X(44)  VALUE SPACE.
    02  MM-MESS.
           03  FILLER  PIC  X(49)  VALUE SPACE.
           03  FILLER  PIC  X(35)  VALUE
    'M I L L I M E T E R     M A P O U T'.
           03  FILLER  PIC  X(48)  VALUE  SPACE.
    02  BUILD-MESS.
          03 FILLER PIC X(39) VALUE SPACES.
          03 MESSAGEX PIC X(41).
           03  FILLER  PIC X(5)   VALUE SPACE.
           03  DATEX.
               04 DATEX-YR PIC XX.
               04 FILLER PIC X VALUE '/'.
               04 DATEX-MO PIC XX.
               04 FILLER PIC X VALUE '/'.
               04 DATEX-DA PIC XX.
           03  FILLER  PIC X(15)  VALUE SPACE.
           03  MTAPE PIC X(15) VALUE SPACES.
           03 MFILE PIC X(13).
    02  NO-DATA   PIC  X(23)  VALUE
    'NO DATA ON THIS TAPE   '.
    02  INVALID-DATA    PIC  X(23)  VALUE
    'INVALID OBSERVATORY    '.
    02  EXITX PIC X  VALUE '0'.
    02  SECOND-ARRAY  PIC X  VALUE '0'.
    02  PREVIOUS-HEADER.
           03  PREVIOUS-OBSYRMOEDAHR.
           04  PREVIOUS-OBSYRMOEDA.
           05  PREVIOUS-OBSYRMO.
               06  PREVIOUS-OBSYR.
                   07  PREVIOUS-OBS  PIC  XXX.
                   07  PREVIOUS-YR   PIC  XX.
               06  PREVIOUS-MO       PIC  XX.
           05  PREVIOUS-E     PIC X.
           05  PREVIOUS-DA    PIC XX.
       04      PREVIOUS-HR    PIC XX.
       03      PREVIOUS-COUNT PIC X.
    02  OUT-OF-SEQ  PIC X(24)  VALUE
    '***  SEQUENCE ERROR  ***'.
    02  J-E-1.
           03  FILLER  PIC  X(32)  VALUE  SPACE.
           03  FILLER  PIC  X(23)  VALUE
           'NUMBER INPUT RECORDS = '.
           03  NUMBER-INPUT  PIC -------9.
           03  FILLER  PIC  X(5)  VALUE  SPACE.
           03  FILLERX PIC  X(27) VALUE
           'NUMBER DUPLICATE RECORDS = '.
           03  NUMBER-DUP  PIC  -----9.
           03  FILLER  PIC X(31) VALUE  SPACE.
01 RECORD-COUNTX PIC S9(8) COMP VALUE 0.
01 BINARY-DAY PIC S9(2) COMP VALUE 0.
01 SUBM PIC S9(8) COMP VALUE 0.
*************************************************************
*                                                           *
*    TABLE OF OBSERVATORY CODES AND THEIR FULL NAMES        *
*                                                           *
*************************************************************
01 TABLE-CODE.
    02 TABLEPOS OCCURS 6 TIMES PIC X(2200).
01 TABLE-CODEX REDEFINES TABLE-CODE.
    02  TABLENAMECODE  OCCURS  600  TIMES.
           03  TABLE-CODEPOS  PIC  XXX.
           03 FILLER PIC X.
           03  TABLE-NAMEPOS  PIC  X(18).
01 SUBTABLE PIC S9(6) COMP VALUE 0.
01 AETYPE PIC X.
01 BLOCKTYPE PIC XX.
01 SHORTTYPE PIC X.
01 DISCTYPE PIC X VALUE ' '.
01 FILE-STATUS PIC XX.
```

```
301 ************************************************************
302 *
303 *   THIS PROGRAM PRODUCES A CATALOG OF GEOMAGNETIC DATA FOR
304 *   1---GEOMAGNETIC MILLIMETER VALUES
305 *   2---GEOMAGNETIC 2.5-MINUTE ABSOLUTE VALUES
306 *       (TABULAR VALUES)
307 *   3---GEOMAGNETIC INDICES (AE,AL,AO,AU,DST)
308 *   4---GEOMAGNETIC HOURLY ABSOULTE VALUES
309 *   WHICH EXIST ON A GIVEN MAGNETIC TAPE OR DISK FILE
310 *
311 ************************************************************
312 PROCEDURE DIVISION.
313 BEGINX SECTION.
314 X1000A.
315     DISPLAY '****WELCOME TO MAPOUT PROGRAM ****'.
316     OPEN INPUT SEQ-FILE.
317     MOVE 1 TO SUBTABLE.
318     DISPLAY 'LOAD OBS NAMES AND CODES'.
319 X1001A.
320     READ SEQ-FILE AT END GO TO X1002A.
321     IF SUBTABLE > 6
322     DISPLAY 'OVER 500 NAMES READ IN--STOP RUN'
323     STOP RUN.
324     MOVE SEQ-RECORD TO TABLEPOS (SUBTABLE).
325     ADD 1 TO SUBTABLE.
326     GO TO X1001A.
327 X1002A.
328     DISPLAY 'TABL-CODEPOS = ' TABLE-CODEPOS (1).
329     DISPLAY 'TABLE-CODEPOS = ' TABLE-CODEPOS (201).
330     CLOSE SEQ-FILE.
331 1000B.
332     DISPLAY '************************************'.
333     DISPLAY 'ENTER A IF INPUT IS ASCII'.
334     DISPLAY 'ENTER E IF INPUT IS EBCDIC'.
335     ACCEPT AETYPE.
336     IF AETYPE NOT = 'E' AND NOT = 'A' GO TO 1000B.
337 1000C.
338     DISPLAY 'ENTER 20 IF INPUT IS BLOCK 20'.
339     DISPLAY 'ENTER 40 IF INPUT IS BLOCK 40'.
340     DISPLAY 'ENTER D  IF INPUT IS ON DISK'.
341     ACCEPT BLOCKTYPE.
342     IF BLOCKTYPE = 'D' MOVE '20' TO BLOCKTYPE
343                        MOVE 'D' TO DISCTYPE.
344     IF BLOCKTYPE NOT = '20' AND NOT = '40' GO TO 1000C.
345     IF AETYPE = 'A' AND BLOCKTYPE = '20'
346                     ALTER LOOP-CONTROL TO PROCEED TO UREADA2
347     IF AETYPE = 'E' AND BLOCKTYPE = '20'
348                     ALTER LOOP-CONTROL TO PROCEED TO UREADE2
349     IF AETYPE = 'A' AND BLOCKTYPE = '40'
350                     ALTER LOOP-CONTROL TO PROCEED TO UREADA4
351     IF AETYPE = 'E' AND BLOCKTYPE = '20'
352                     ALTER LOOP-CONTROL TO PROCEED TO UREADE4
353 1000D.
354     DISPLAY '************************************'.
355     DISPLAY
356     'DO YOU WANT TO ADD TO THE SHORTMAP FILE ENTER Y/N'.
357     ACCEPT SHORTTYPE.
358     IF SHORTTYPE NOT = 'N' AND NOT = 'Y' GO TO 1000D.
359     DISPLAY '************************************'.
360     DISPLAY 'ENTER NAME OF MAPOUT PRINT FILE'.
361     ACCEPT TAPE41.
362     DISPLAY '************************************'.
363     EXPUNGE PRINTFILE.
364     OPEN OUTPUT PRINTFILE.
365 1000A.
366     DISPLAY 'ENTER INPUT UNIT NAME---LIKE TAPE1F OR CARL'.
367     DISPLAY 'DISC INPUT CAN BE ANYTHING'.
368     DISPLAY 'TAPE INPUT SHOULD BE NAMED TAPE10:0'.
369     DISPLAY 'REMEMBER BEFORE EXECUTING THIS PROGRAM'.
370     DISPLAY 'YOU SHOULD ISSUED A MOUNT COMMEND FOR A TAPE'.
371     DISPLAY
372     'TAPE MOUNT COMMOMD = MOUNT TAPE10 WO011-9TRACK-1600'.
373     ACCEPT TAPE10.
374     MOVE TAPE10 TO MFILE.
375     IF DISCTYPE = 'D' GO TO 1000E.
376     IF TN3 = ' ' MOVE TN2 TO TN3
377                  MOVE TN1 TO TN2
378                  MOVE '0' TO TN1.
379     IF TN3 = ' ' MOVE TN2 TO TN3
380                  MOVE TN1 TO TN2
381                  MOVE '0' TO TN1.
382     MOVE TN TO MFILE.
383     DISPLAY 'ENTER REAL TAPE NUMBER LIKE WO0923'.
384     ACCEPT HTAPE.
385 1000E.
386     IF SHORTTYPE = 'N' GO TO 1001A.
387     DISPLAY
388     'ENTER H FOR HOURLY VALUES, 2 FOR 2.5-MIN DATA'.
389     ACCEPT XX.
390     IF XX = 'H' MOVE 'ARCHIVEHV' TO TAPE40 ELSE
391                 MOVE 'ARCHIVE25' TO TAPE40.
392 1000F.
393     OPEN EXTEND ARCHIVE-FILE.
394     MOVE SPACES TO ARCHIVE-RECORD.
395     MOVE HTAPE TO ATAPE.
396     DISPLAY 'ENTER READ TAPE NUMBER BACKUP IF ANY'.
397     ACCEPT HBTAPE.
398     MOVE HBTAPE TO ABTAPE.
399     ACCEPT HDATE FROM  DATE.
400     MOVE HDATE TO ADATE.
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401      MOVE TNN TO AFILE.
402      DISPLAY 'ENTER H=HOURLY VALUE, 2=2.5-MIN VALUE DATA'.
403      ACCEPT AATAPE.
404      MOVE AATAPE TO ATYPE.
405  1001A.
406      MOVE  SPACES  TO  PREVIOUS-HEADER.
407      MOVE SPACES TO DATA-LINEA.
408      MOVE SPACES TO DATA-LINEB.
409      MOVE 1 TO SUBM.  MOVE 0 TO  RECORD-COUNTX.
410      MOVE  0 TO  DUPLICATE-COUNT.
411  ************************************************************
412  *
413  *   PRINTOUT RECORD DESCRIPTION FOR 2.5-MIN GEOMAGENTIC  OR
414  *   GEOMAGNETIC HOURLY VALUES
415  *
416  ************************************************************
417  1002A.
418      MOVE SPACES TO PRINT-LINE-ALC.
419      PERFORM PRINTNEWPAGE.
420      MOVE '**** THE FOLLOWING IS A FORMAT OF THE DATA RECORDS
421      TO PRINT-LINE PERFORM PRINT.
422      MOVE '-------------------------------------------------
423      TO PRINT-LINE PERFORM PRINT.
424      MOVE 'CC 1-3  = OBSERVATORY CODE (CO =COLLEGE)'
425      TO PRINT-LINE PERFORM PRINT.
426      MOVE 'CC 4-5 = YEAR (78 = 1978)'
427      TO PRINT-LINE PERFORM PRINT.
428      MOVE 'CC 6=7 = MONTH (12 = DECEMBER)'
429      TO PRINT-LINE PERFORM PRINT.
430      MOVE 'CC 8   = ELEMENT (D,H,Z,X,Y,F)'
431      TO PRINT-LINE PERFORM PRINT.
432      MOVE '   D= DECLARATION'
433      TO PRINT-LINE PERFORM PRINT.
434          MOVE '   H= HORIZONTAL INSTENSITY'
435      TO PRINT-LINE PERFORM PRINT.
436          MOVE '   Z= VERTICAL INTENSITY'
437      TO PRINT-LINE PERFORM PRINT.
438          MOVE '   F= TOTAL INTENSITY'
439      TO PRINT-LINE PERFORM PRINT.
440          MOVE '   X= X COMPONENT OF HORIZONTAL INTENSITY'
441      TO PRINT-LINE PERFORM PRINT.
442          MOVE '   Y= Y COMPONENT OF HORIZONTAL INTENSITY'
443      TO PRINT-LINE PERFORM PRINT.
444      MOVE 'CC 8-10 = DAY (01 = FIRST DAY OF MONTH)'
445      TO PRINT-LINE PERFORM PRINT.
446      MOVE 'CC 11-12 = HOUR (00-23)'
447      TO PRINT-LINE PERFORM PRINT.
448          MOVE 'IF FORMAT IS HOURLY VALUES---NO HOUR'
449      TO PRINT-LINE PERFORM PRINT.
450      MOVE 'CC 13-16 = NOT USED'
451      TO PRINT-LINE PERFORM PRINT.
452      MOVE 'CC 17-20 = TAB BASE '
453      TO PRINT-LINE PERFORM PRINT.
454          MOVE 'IF ELEMENT = D AND TAB BASE = 1 (1 DGREE)'
455      TO PRINT-LINE PERFORM PRINT.
456          MOVE 'IF ELEMENT NOT = D AND TAB = 550 (55000 GAMMAS
457      TO PRINT-LINE PERFORM PRINT.
458      MOVE 'CC 21-116 = 24 4-DIGIT DATA VALUES'
459      TO PRINT-LINE PERFORM PRINT.
460      MOVE 'CC 117-120 = MEAN OF RECORD'
461      TO PRINT-LINE PERFORM PRINT.
462          MOVE 'IF HOURLY THEN MEAN = DAILY MEAN'
463      TO PRINT-LINE PERFORM PRINT.
464          MOVE 'IF 2.5-MIN RECORD THEN MEAN = HOURLY MEAN'
465      TO PRINT-LINE PERFORM PRINT.
466      MOVE '*****************************************'
467      TO PRINT-LINE PERFORM PRINT.
468      IF BLOCKTYPE = '20'  AND DISCTYPE NOT = 'D'
469      MOVE
470      'THE 120 CHARACTERS ARE BLOCKED 20 (2400 CHARACTERS/PHYS
471      TO PRINT-LINE PERFORM PRINT.
472      IF BLOCKTYPE = '40'
473      MOVE
474      'THE 120 CHARACTER RECORDS ARE BLOCKED 40 (4800 CHAR/PHY
475      TO PRINT-LINE PERFORM PRINT.
476      IF AETYPE = 'E'
477      MOVE 'THE DATA IS IN EBCDIC CODE' TO PRINT-LINE PERFORM
478      MOVE SPACES TO PRINT-LINE PERFORM PRINT.
479      PERFORM PRINTNEWPAGE.
480  ************************************************************
481  *                                                          *
482  *   GET TODAYS DATE FROM COMPUTER                          *
483  *   SEPARATE YEAR MONTH AND DAY WITH / MARKS               *
484  *                                                          *
485  ************************************************************
486  1003A.
487      ACCEPT IPL-DATE FROM DATE.
488      IF BLOCKTYPE = '20' AND AETYPE = 'A'
489      OPEN INPUT INA20 GO TO 1003B.
490      IF BLOCKTYPE = '40' AND AETYPE = 'A'
491      OPEN INPUT INA40 GO TO 1003B.
492      IF BLOCKTYPE = '20' AND AETYPE = 'E'
493      OPEN INPUT INE20 GO TO 1003B.
494      IF BLOCKTYPE = '40' AND AETYPE = 'E'
495      OPEN INPUT INE40 GO TO 1003B.
496      DISPLAY 'NO INPUT WAS OPENED'.
497      STOP RUN.
498  1003B.
499      MOVE  J-B  TO MESSAGEX.
500      MOVE HTAPE  TO MTAPE.
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501      MOVE IPL-YR TO DATEX-YR.
502      MOVE IPL-MO TO DATEX-MO.
503      MOVE IPL-DA TO DATEX-DA.
504      PERFORM MOVE-PRINT-MESS.
505      MOVE 0 TO INCOUNT.
506  1004A.
507      PERFORM UREADIT.
508      IF BLOCKTYPE = '20' AND AETYPE = 'A'
509      MOVE INA20-RECORD TO INCOMING-RECORD.
510      IF BLOCKTYPE = '40' AND AETYPE = 'A'
511      MOVE INA40-RECORD TO INCOMING-RECORD.
512      IF BLOCKTYPE = '20' AND AETYPE = 'E'
513      MOVE INE20-RECORD TO INCOMING-RECORD.
514      IF BLOCKTYPE = '40' AND AETYPE = 'E'
515      MOVE INE40-RECORD TO INCOMING-RECORD.
516      ADD 1 TO INCOUNT TCOUNT.
517      GO TO 1006A.
518  ****************************************************************
519  *                                                              *
520  *   PRINTOUT FIRST DATA RECORD                                 *
521  *                                                              *
522  ****************************************************************
523  1006A.
524      MOVE INCOMING-RECORD TO PRINT-LINE.
525      PERFORM PRINT2LINES.
526      DISPLAY INCOMING-RECORD ' ' TN.
527  1007A.
528      GO TO 1009A.
529  ****************************************************************
530  *   IF FIRST 3-DIGITS (OBSERVATORY CODE CODE GWR)              *
531  *   ARE NOT ALPHABETIC----YOU PROBABLY HAVE THE WRONG DATA     *
532  *                                                              *
533  ****************************************************************
534  1008A.
535      IF  OBSM        IS NOT ALPHABETIC
536      MOVE INVALID-DATA TO MESSAGEX
537          PERFORM  MOVE-PRINT-MESS
538          GO TO JOB-ABORT.
539  1009A.
540      MOVE  OBSYRMO        TO D-L-OBSYRMO.
541  ****************************************************************
542  *                                                              *
543  *  LOOKUP THE ENGLISH TRANSLATION FOR THE                      *
544  *  CODE (CO = COLLEGE)                                         *
545  *                                                              *
546  ****************************************************************
547  1010A.
548      MOVE  OBSM TO OBS-NL.
549      PERFORM LOOKUP.
550      IF ELE = '*' PERFORM INDICES.
551  ****************************************************************
552  *                                                              *
553  *   IF THE FIRST DATA RECORD HAS NO HOUR                       *
554  *   PRINT THE HOURLY VALUE MESSAGE                             *
555  *   OTHERWISE YOU HAVE 2.5-MIN DATA AND PRINTOUT               *
556  *   2.5-MIN MESSAGE                                            *
557  *                                                              *
558  ****************************************************************
559  1011A.
560      IF HRM  = '  ' MOVE HV-MESS TO PRINT-LINE
561      PERFORM PRINT2LINES
562          GO TO 1012A.
563  ****************************************************************
564  *                                                              *
565  *   IF YOU HAVE 2.5-MIN VALUE DATA-----THERE ARE TWO TYPES     *
566  *   (1)---MILLIMETER SCALING DATA WHICH A SEQ NUMBER           *
567  *         IN CC13-17                                           *
568  *   (2)--- TV DATA (ABSOLUTE  GEOMAGNETIC VALUES               *
569  *         IN CC13-17 = BLANK*                                  *
570  *                                                              *
571  ****************************************************************
572      IF COUNTX  = ' '
573          MOVE  TV-MESS TO PRINT-LINE
574        ELSE MOVE MM-MESS TO PRINT-LINE.
575      PERFORM PRINT2LINES.
576  ****************************************************************
577  *                                                              *
578  *   IF YOU HAVE HOURLY VALUES THERE 2 TYPES                    *
579  *   (1)--- MILLIMETER VALUES ---CC 17-20 = BLANKS              *
580  *   (2)--- TV TABULAR VALUES OR ABSOLUTE VALUE)                *
581  *          IN CC17-20 = TAB                                    *
582  *                                                              *
583  ****************************************************************
584  1012A.
585      IF HRM NOT =     '  '  GO TO 1013A.
586      IF  CC-17-20  IS NOT EQUAL TO  '
587      MOVE TV-MESS TO PRINT-LINE
588     ELSE
589      MOVE MM-MESS TO PRINT-LINE.
590      PERFORM  PRINTERX.
591      GO TO 1013A.
592  1013A.
593      IF CC-15 = ' '  GO TO 1014A.
594      MOVE SPACES TO PRINT-LINE.
595      IF CC-15 = 'A'
596      MOVE 'ASMO' TO PRINT-LINE.
597      IF CC-15  = 'F'  MOVE 'FLEXGATE' TO PRINT-LINE.
598      IF CC-15  = 'T'  MOVE 'TRIPLE SENSOR' TO PRINT-LINE.
599      PERFORM PRINTERX.
600      GO TO 1014A.
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601 *************************************************************
602 *                                                           *
603 *   BEGIN A NEW PAGE                                        *
604 *                                                           *
605 *************************************************************
606 1014A.
607     MOVE '*' TO OVERFLOW-ALC.
608     PERFORM PAGE-CHECK.
609     MOVE SPACES TO PRINT-LINE.
610     PERFORM PRINT2LINES.
611 *************************************************************
612 *                                                           *
613 *   STORE THE PRESENT INPUT ID                              *
614 *                                                           *
615 *************************************************************
616 1015A.
617     MOVE  CHECK-AREA TO PREVIOUS-HEADER.
618     GO TO 1019A.
619 *************************************************************
620 *                                                           *
621 *   D CHECK TO SEE IF PRESENT INPUT RECORD IS >              *
622 *   PREVIOUS INPUT RECORD                                   *
623 *   IF THIS STATEMENT IS TRUE CONTINUE---                   *
624 *           OTHERWISE YOU HAVE A                            *
625 *   IF THIS STATEMENT IS TRUE CONTINUE---                   *
626 *           ELSE THERE IS A PROGRAM*                        *
627 *   (1) DUPLICATE RECORD OR (2) OUT OF SEQUENCE RECORD      *
628 *                                                           *
629 *************************************************************
630 1016A.
631     IF  FULL-HEADER-STORE >
632                               PREVIOUS-OBSYRMOEDAHR
633     GO TO 1017A   ELSE
634         GO TO PROBLEM-CHECK.
635 *************************************************************
636 *                                                           *
637 *   IF YOU HAVE HOURLY VALUES----THIS CHECK  MEANS NOTHING  *
638 *   IF YOU HAVE VALUES---THIS CHECK DOES NOT MEAN ANYTHING  *
639 *   FOR 2.5-MIN VALUES---WE ONLY MAKE AN ENTRY ONE TIME     *
640 *   THEREFORE---AFTER ONE ENTRY HAS BEEN MADE DO NOT CHECK  *
641 *   FOR OTHER HOUR RECORDS FOR THE SAME DAY                 *
642 *                                                           *
643 *************************************************************
644 1017A.
645    IF   OBSYRMOEDA = PREVIOUS-OBSYRMOEDA
646         GO TO LOOP-CONTROL.
647 *************************************************************
648 *                                                           *
649 *   IF THE OBSERVATORY YEAR AND MONTH = PREVIOUS RECORD     *
650 *   CONTINUE ACCUMLATING ARRAY                  ELSE        *
651 *   YOU HAVE TO DO SOME HOUSECLEANING                       *
652 *                                                           *
653 *************************************************************
654 1018A.
655     IF OBSYRMO = PREVIOUS-OBSYRMO
656     MOVE CHECK-AREA TO PREVIOUS-HEADER GO TO 1019A.
657     GO TO  PRINT-LINE-LOOP.
658 *************************************************************
659 *                                                           *
660 *   THIS PARAGRAPH IS THE HEART OF THE PROGRAM              *
661 *   WE ARE BUILDING AN ARRAY                                *
662 *   WE ARE MAKING AN ENTRY FOR EACH DAY ELEMENT             *
663 *   DAYS ARE GROUPED INTO 5 DAYS AT A TIME SEPARATED        *
664 *   BY A SPACE                                              *
665 *   SO IF YOU HAVE DAY 1 YOU MAKE AN ENTRY INTO POSITION    *
666 *   ONE                                                     *
667 *   SO YOU HAVE DAY 6 YOU MAKE AN ENTRY INTO POSITION 7     *
668 *   (L+1)                                                   *
669 *                                                           *
670 *************************************************************
671 1019A.
672     IF DAM > '31' DISPLAY INA20-RECORD.
673     IF DAM < '01' DISPLAY INA20-RECORD.
674     IF DAM NOT NUMERIC DISPLAY INA20-RECORD.
675     MOVE DAM TO DAMH.
676    MOVE  DAN TO BINARY-DAY.
677     IF DAMH >
678             25  ADD 5 TO BINARY-DAY  GO TO 1020A.
679     IF DAMH >
680             20  ADD 4 TO BINARY-DAY  GO TO 1020A.
681     IF DAMH >
682             15  ADD 3 TO BINARY-DAY  GO TO 1020A.
683     IF DAMH >
684             10  ADD 2 TO BINARY-DAY  GO TO 1020A.
685     IF DAMH >
686             05  ADD 1 TO BINARY-DAY  GO TO 1020A.
687 *************************************************************
688 *                                                           *
689 *   AS WE BUILD THE ARRAY---THE ENTRY WE ARE MAKING IS      *
690 *   (1)-----D IF ELEMENT DECLINATION OR H,Z(F,X,Y           *
691 *                                                           *
692 *************************************************************
693 1020A.
694     MOVE ELE TO ELA.
695     IF ELA = 'D'  MOVE  'D' TO DATA-POSD (BINARY-DAY) GO TO
696     LOOP-CONTROL.
697     IF ELA = 'H'  MOVE  'H' TO DATA-POSH (BINARY-DAY) GO TO
698     LOOP-CONTROL.
699     IF ELA = 'Z'  MOVE  'Z' TO DATA-POSZ (BINARY-DAY) GO TO
700     LOOP-CONTROL.
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701      IF ELA = '*'  MOVE  '*' TO DATA-POSD (BINARY-DAY) GO TO
702      LOOP-CONTROL.
703      IF ELA = 'X' GO TO 1021A.
704      IF ELA = 'Y' GO TO 1022A.
705      IF ELA = 'I' MOVE  'I'  TO DATA-POST (BINARY-DAY)
706      MOVE '1' TO SECOND-ARRAY  GO TO LOOP-CONTROL.
707      IF ELA = 'F' MOVE  'F'  TO DATA-POST (BINARY-DAY)
708      MOVE '1' TO SECOND-ARRAY  GO TO LOOP-CONTROL.
709      GO TO JOB-ABORT.
710  1021A.
711      IF DATA-POSD (BINARY-DAY) = ' ' MOVE  'X' TO
712         DATA-POSD (BINARY-DAY)  ELSE
713            MOVE 'X' TO DATA-POST (BINARY-DAY) MOVE '1' TO
714      SECOND-ARRAY.
715      GO TO LOOP-CONTROL.
716  1022A.
717      IF DATA-POSH (BINARY-DAY) = ' '  MOVE  'Y' TO
718         DATA-POSH (BINARY-DAY)  ELSE
719         MOVE 'Y'  TO  DATA-POST (BINARY-DAY) MOVE  '1' TO
720         SECOND-ARRAY.
721  LOOP-CONTROL.
722      GO TO LOOP-CONTROL1.
723  LOOP-CONTROL1.
724      IF BLOCKTYPE = '20' AND AETYPE = 'A' GO TO UREADA20.
725      IF BLOCKTYPE = '40' AND AETYPE = 'A' GO TO UREADA40.
726      IF BLOCKTYPE = '20' AND AETYPE = 'E' GO TO UREADE20.
727      IF BLOCKTYPE = '40' AND AETYPE = 'E' GO TO UREADE40.
728      DISPLAY 'ERROR--IN READ'.
729      STOP RUN.
730  UREADA20.
731      READ INA20
732      AT END DISPLAY TCOUNT ' ' INCOUNT
733      GO TO JOB-END-1.
734      MOVE INA20-13 TO INCOMING-RECORD.
735      GO TO UEXIT.
736  UREADA40.
737      READ INA40 INTO INCOMING-RECORD
738      AT END DISPLAY TCOUNT  ' ' INCOUNT
739      GO TO JOB-END-1.
740      GO TO UEXIT.
741  UREADE20.
742      READ INE20
743      AT END DISPLAY TCOUNT ' ' INCOUNT
744      GO TO JOB-END-1.
745      MOVE INE20-13 TO INCOMING-RECORD.
746      GO TO UEXIT.
747  UREADE40.
748      READ INE40
749      AT END DISPLAY TCOUNT ' ' INCOUNT
750      GO TO JOB-END-1.
751      MOVE INE40-13 TO INCOMING-RECORD.
752  UEXIT.
753      ADD 1 TO INCOUNT TCOUNT.
754      GO TO 1016A.
755  PRINT-LINE-LOOP.
756      IF  OBSYR NOT =    PREVIOUS-OBSYR
757          MOVE  '1' TO EXITX.
758  PRINT-LINE-LOOP-1.
759      PERFORM PAGE-CHECK.
760      IF OBSM  NOT =    PREVIOUS-OBS
761      MOVE OBSM TO OBS-NL
762      PERFORM LOOKUP.
763  PRINT-LINE-LOOP-2.
764      MOVE  DATA-LINEA TO PRINT-LINE.
765      WRITE PRINT-LINE-ALC.
766      ADD 1 TO PRINT-COUNT.
767      IF PRINT-COUNT  > 50  MOVE '*' TO OVERFLOW-ALC
768      MOVE 0 TO PRINT-COUNT.
769
770      IF SHORTTYPE NOT = 'N'
771      MOVE DATA-LINEA TO ADATA WRITE ARCHIVE-RECORD.
772      MOVE SPACES TO DATA-LINEA.
773
774      IF SECOND-ARRAY  = '1'  MOVE '0' TO SECOND-ARRAY
775          MOVE DATA-LINEB TO ADATA PERFORM WRITEARCH
776          MOVE DATA-LINEB  TO PRINT-LINE
777          PERFORM PRINTERX    MOVE SPACE TO DATA-LINEB.
778  PRINT-LINE-LOOP-2A.
779      IF  EXITX  = '1'
780          MOVE '0' TO EXITX GO TO PRINT-LINE-LOOP-3.
781  PRINT-LINE-LOOP-2B.
782      MOVE CHECK-AREA TO PREVIOUS-HEADER.
783      MOVE  OBSYRMO TO D-L-OBSYRMO.
784      GO TO 1019A.
785  PRINT-LINE-LOOP-3.
786      IF OVERFLOW-ALC = '*'
787          PERFORM PAGE-CHECK
788          GO TO PRINT-LINE-LOOP-2B.
789      MOVE  NAME-LINE  TO PRINT-LINE
790      PERFORM PRINT2LINES.
791      MOVE SPACES TO PRINT-LINE
792      PERFORM PRINT2LINES
793      MOVE SPACES TO DATA-LINEA
794      MOVE SPACES TO DATA-LINEB    GO TO
795      PRINT-LINE-LOOP-2B.
796  PROBLEM-CHECK.
797      IF  FULL-HEADER-STORE        = PREVIOUS-OBSYRMOEDAHR
798          ADD 1 TO DUPLICATE-COUNT
799          GO TO LOOP-CONTROL.
800  SEQUENCE-ERROR.
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801      PERFORM PAGE-CHECK.
802      PERFORM PRINT-LINE-LOOP-2.
803      MOVE  OUT-OF-SEQ TO PRINT-LINE
804      PERFORM PRINT2LINES.
805      MOVE INCOMING-RECORD TO PRINT-LINE PERFORM PRINT.
806      IF OBSM  NOT =   OBS-NL
807          PERFORM 1010A.
808      GO TO   PRINT-LINE-LOOP-2B.
809  PAGE-CHECK.
810      IF OVERFLOW-ALC = '*'
811      MOVE ' ' TO OVERFLOW-ALC
812          MOVE  HEADERA TO PRINT-LINE
813      PERFORM PRINTNEWPAGE
814          MOVE  HEADERB TO PRINT-LINE
815      PERFORM PRINT2LINES
816          MOVE NAME-LINE  TO PRINT-LINE
817      PERFORM PRINT2LINES
818      MOVE SPACES TO PRINT-LINE
819      PERFORM PRINT.
820  UTILITY SECTION.
821  PRINTERX.
822      WRITE PRINT-LINE-ALC.
823      ADD 1 TO PRINT-COUNT.
824      IF PRINT-COUNT  > 50  MOVE '*' TO OVERFLOW-ALC
825      MOVE 0 TO PRINT-COUNT.
826  MOVE-PRINT-MESS.
827      MOVE BUILD-MESS  TO PRINT-LINE.
828      PERFORM PRINT2LINES.
829      IF OVERFLOW-ALC = '*'  PERFORM PAGE-CHECK.
830  JOB-END-1.
831      IF INCOUNT = 0 GO TO JOB-END-2.
832      IF BLOCKTYPE = '20' AND AETYPE = 'A'
833      MOVE INA20-RECORD TO INCOMING-RECORD
834      IF BLOCKTYPE = '40' AND AETYPE = 'A'
835      MOVE INA40-RECORD TO INCOMING-RECORD.
836      IF BLOCKTYPE = '20' AND AETYPE = 'E'
837      MOVE INE20-RECORD TO INCOMING-RECORD.
838      IF BLOCKTYPE = '40' AND AETYPE = 'E'
839      MOVE INE40-RECORD TO INCOMING-RECORD.
840      IF BLOCKTYPE = '20' AND AETYPE = 'A' CLOSE INA20.
841      IF BLOCKTYPE = '40' AND AETYPE = 'A' CLOSE INA40.
842      IF BLOCKTYPE = '20' AND AETYPE = 'E' CLOSE INE20.
843      IF BLOCKTYPE = '40' AND AETYPE = 'E' CLOSE INE40.
844      PERFORM PRINT-LINE-LOOP-2.
845      MOVE SPACES TO PRINT-LINE PERFORM PRINT.
846      MOVE INCOMING-RECORD TO PRINT-LINE PERFORM PRINT.
847      MOVE DUPLICATE-COUNT TO NUMBER-DUP.
848      MOVE INCOUNT TO NUMBER-INPUT.
849      MOVE J-E-1 TO PRINT-LINE.
850      PERFORM PRINT2LINES.
851      IF INCOUNT = 0         GO TO JOB-END-2.
852      IF DISCTYPE = 'D'      GO TO JOB-END-2.
853      MOVE INCOUNT TO ACOUNT PERFORM WRITEARCH.
854      MOVE 0 TO INCOUNT.
855      ADD 1 TO TNN.
856      MOVE TN TO MFILE.
857      MOVE SPACES TO PRINT-LINE PERFORM PRINTNEWPAGE.
858      PERFORM 1001A.
859      IF BLOCKTYPE = '20' AND AETYPE = 'A' OPEN INPUT INA20.
860      IF BLOCKTYPE = '40' AND AETYPE = 'A' OPEN INPUT INA40.
861      IF BLOCKTYPE = '20' AND AETYPE = 'E' OPEN INPUT INE20.
862      IF BLOCKTYPE = '40' AND AETYPE = 'E' OPEN INPUT INE40.
863      IF FILE-STATUS = '34' GO TO JOB-END-2.
864      MOVE TNN    TO AFILE.
865      MOVE 0 TO PRINT-COUNT.
866      GO TO 1003B.
867  JOB-END-2.
868      IF SHORTTYPE NOT = 'N'
869      CLOSE ARCHIVE-FILE.
870      MOVE SPACES TO PRINT-LINE PERFORM PRINT.
871      MOVE TCOUNT TO NUMBER-INPUT.
872      MOVE 0 TO NUMBER-DUP.
873      MOVE J-E-1 TO PRINT-LINE PERFORM PRINT.
874      DISPLAY 'TO PRINT THE MAPOUT   QPRINT ' TAPE41.
875      STOP RUN.
876  JOB-ABORT.
877      MOVE J-A TO MESSAGEX.
878      PERFORM  MOVE-PRINT-MESS.
879      MOVE SPACES TO PRINT-LINE
880      PERFORM PRINTERX.
881      MOVE  INCOMING-RECORD TO PRINT-LINE  PERFORM PRINTERX.
882      STOP RUN.
883  WRITEARCH.
884      IF SHORTTYPE NOT = 'N' WRITE ARCHIVE-RECORD.
885  ***************************************************************
886  *   IF THE ELEMENT IS AN *8 THEN THE OBSERVATORY CODE      *
887  *   REFERS TO THE TYPE OF INDICES AE,AL,AO,AU,DST          *
888  ***************************************************************
889  INDICES.
890      MOVE OBSM TO OBSMM.
891      IF OBSMM   =  'AE '     MOVE
892      'AE INDICES          ' TO OBS-NAME.
893      IF OBSMM   =  'AL '     MOVE
894      'AL INDICES          ' TO OBS-NAME.
895      IF OBSMM   =  'AO '     MOVE
896      'AO INDICES          ' TO OBS-NAME.
897      IF OBSMM   = 'AO' MOVE
898      'AU INDICES          ' TO OBS-NAME.
899      IF OBSMM   =  'DST'     MOVE
900      'DST INDICES         ' TO OBS-NAME.
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901 ************************************************************
902 *                                                          *
903 *   TO STRAGY IS TO GO TO MIDDLE OF THE ARRAY AND          *
904 *   CHECK OBS. CODE.  THIS WAY WE HAVE DIVIDED             *
905 *   THE TABLE INTO 2 PARTS AND WE NOW ONLY HAVE            *
906 *   TO BE CONCERNED ABOUT 1 PART.   WE CONTINUE            *
907 *   THIS HALFING PROCESS UNTIL WE FIND THE CORRECT         *
908 *   OBSERVATORY CODE AND GET THE OBSERVATORY NAME          *
909 *                                                          *
910 ************************************************************
911 LOOKUP SECTION.
912 1000AT.
913     IF ELE   = '*' PERFORM INDICES GO TO R-2001.
914     IF OBS-NL = HOBS GO TO R-2001.
915     MOVE  300 TO SUB-W.
916     MOVE 150 TO INCREMENT.
917     MOVE 0 TO LOOP-CONTROLX.
918     MOVE 0 TO INCR.
919 COMPARE.
920     IF SUB-W < 1 GO TO FOUND-NO-NAME.
921     IF SUB-W > 600 GO TO FOUND-NO-NAME.
922     IF OBS-NL     =  TABLE-CODEPOS (SUB-W)
923     GO TO FOUND-NAME.
924 COMPARE-2.
925     IF LOOP-CONTROLX  =  1
926     GO TO FOUND-NO-NAME.
927 COMPARE-3.
928     IF SUB-W > 600 GO TO FOUND-NO-NAME.
929     IF OBS-NL      <  TABLE-CODEPOS (SUB-W)
930     GO TO COMPARE-INCR   ELSE
931     ADD INCREMENT  TO SUB-W
932     MOVE 1 TO INCR  GO TO COMPARE-INCREMENT.
933 COMPARE-INCR.
934     IF INCR  =  1
935     SUBTRACT  INCREMENT  FROM SUB-W  GO TO COMPARE-INCREMENT
936     ELSE MOVE INCREMENT TO SUB-W
937     GO TO COMPARE-INCREMENT.
938 COMPARE-INCREMENT.
939     IF INCREMENT  =  1
940     MOVE 1 TO LOOP-CONTROLX GO TO COMPARE
941     ELSE
942     COMPUTE  INCREMENT  ROUNDED  =  INCREMENT  /  2
943     GO TO COMPARE.
944 *** WE HAVE NOT FOUND THE OBS  CODE
945 FOUND-NO-NAME.
946     MOVE SPACES TO OBS-NAME.
947     GO TO R-2000.
948 FOUND-NAME.
949 R-2000.
950     MOVE TABLE-NAMEPOS (SUB-W)  TO OBS-NAME.
951     MOVE OBS-NL TO HOBS.
952 R-2001.
953     EXIT.
954 UTILITY1 SECTION.
955 PRINT.
956     WRITE PRINT-LINE-ALC.
957 PRINT2LINES.
958     WRITE PRINT-LINE-ALC AFTER ADVANCING 2 LINES.
959     ADD 2 TO PRINT-COUNT.
960     IF PRINT-COUNT > 50 MOVE '*' TO
961     OVERFLOW-ALC MOVE 0 TO PRINT-COUNT.
962 PRINTNEWPAGE.
963     WRITE PRINT-LINE-ALC AFTER ADVANCING PAGE.
964 UREADIT SECTION.
965 UREAD.
966     IF BLOCKTYPE = '20' AND AETYPE = 'A' GO TO UREADA20X.
967     IF BLOCKTYPE = '40' AND AETYPE = 'A' GO TO UREADA40X.
968     IF BLOCKTYPE = '20' AND AETYPE = 'E' GO TO UREADE20X.
969     IF BLOCKTYPE = '40' AND AETYPE = 'E' GO TO UREADE40X.
970     DISPLAY 'ERROR--IN READ'.
971     STOP RUN.
972 UREADA20X.
973     READ INA20
974     AT END DISPLAY TCOUNT ' ' INCOUNT
975     GO TO JOB-END-1.
976     MOVE INA20-13 TO INCOMING-RECORD.
977     GO TO UEXITX.
978 UREADA40X.
979     READ INA40
980     AT END DISPLAY TCOUNT  ' ' INCOUNT
981     GO TO JOB-END-1.
982     MOVE INA40-13     TO INCOMING-RECORD.
983     GO TO UEXITX.
984 UREADE20X.
985     READ INE20
986     AT END DISPLAY TCOUNT ' ' INCOUNT
987     GO TO JOB-END-1.
988     MOVE INE20-13 TO INCOMING-RECORD.
989     GO TO UEXITX.
990 UREADE40X.
991     READ INE40
992     AT END DISPLAY TCOUNT ' ' INCOUNT
993     GO TO JOB-END-1.
994     MOVE INE40-13 TO INCOMING-RECORD.
995 UEXITX.
996     EXIT.
997
998
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UAG-86 INTERNATIONAL CATALOG OF GEOMAGNETIC DATA, compiled by J.H. Allen and C.C. Abston, National Geophysical Data Center, NOAA, Boulder, CO; E.P. Kharin and N.E. Papitashvili, Academy of Sciences of the USSR, World Data Center B2, Moscow, USSR; and V.O. Papitashvili, IZMIRAN, Moscow Region, USSR, November 1982, 191 pp. Supersedes UAG-35 and 49.

UAG-87 CHANGES IN THE GLOBAL ELECTRIC FIELDS AND CURRENTS FOR MARCH 17-19, 1978, FROM SIX IMS MERIDIAN CHAINS OF MAGNETOMETERS, by Y. Kamide, Kyoto Sangyo University, Kyoto, Japan; H.W. Kroehl, National Geophysical Data Center, NOAA, Boulder, CO; and A.D. Richmond, NOAA Space Environment Laboratory, Boulder, CO, November 1982, 102 pp, $3.50.

UAG-88 NUMERICAL MODELING OF IONOSPHERIC PARAMETERS FROM GLOBAL IMS MAGNETOMETER DATA FOR THE CDAW-6 INTERVALS, by Y. Kamide, Kyoto Sangyo University, Kyoto, Japan; H.W. Kroehl, National Geophysical Data Center, NOAA, Boulder, CO; and B.A. Hausman, National Geophysical Data Center, NOAA, Boulder, CO, November 1983, 197 pp, $4.00.

UAG-89 ATMOSPHERIC HANDBOOK: ATMOSPHERIC DATA TABLES AVAILABLE ON COMPUTER TAPE, by V.E. Derr, NOAA Environmental Research Laboratories, Boulder, CO, July 1984, 56 pp.

UAG-90 EXPERIENCE WITH PROPOSED IMPROVEMENTS OF THE INTERNATIONAL REFERENCE IONOSPHERE (IRI): CONTRIBUTED PAPERS, MAINLY FROM THE URSI-COSPAR WORKSHOP HELD IN BUDAPEST IN 1980, edited by K. Rawer, University of Freiburg, Federal Republic of Germany, and C.M. Minnis, former Secretary General of URSI, Brussels, Belgium, May 1984, 233 pp, $6.00.

UAG-91 COMBINED CATALOG OF IONOSPHERE VERTICAL SOUNDINGS DATA, compiled by Raymond O. Conkright and Marcus O. Ertle, National Geophysical Data Center, NOAA, Boulder, CO; December 1984, 174 pp.

UAG-92 INTERNATIONAL CATALOG OF GEOMAGNETIC DATA, compiled by C.C. Abston, National Geophysical Data Center, NOAA, Boulder, CO; N.E. Papitashvili, Academy of Sciences of the USSR, World Data Center B2, Moscow, USSR; and V.O. Papitashvili, IZMIRAN, Moscow Region, USSR, August 1985, 291 pp. Supersedes UAG-35, 49, 86.

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# DATA ANNOUNCEMENT

STP-85-3
March 1985

## UNITED STATES AND CANADIAN DIGITAL GEOMAGNETIC OBSERVATORY DATA 1978-1983

The National Geophysical Data Center (NGDC) announces the availability of digital geomagnetic data from the United States and Canadian Standard Observatory Networks. The United States observatories are operated by the United States Geological Survey (USGS). The Canadian observatories are operated by the Energy Mines and Resources Canada, Division of Seismology and Geomagnetism. Both organizations supply their data to NGDC/WDC-A for STP. The data are 1.0-minute average samples of geomagnetic variations relative to absolute baselines and hourly averages. It should be noted that in the near future all 12 U.S. standard observatories will be converted to digital recording systems.

### Locations of Observatories—United States

| Observatories | | Corrected Geomagnetic Coordinates N LAT | E LONG | Geographic Coordinates LAT | W LONG |
|---|---|---|---|---|---|
| BRW | Barrow, AK | 21.1 | 242.6 | 71.3 | 156.8 |
| BOU | Boulder, CO | 41.0 | 318.2 | 40.1 | 105.2 |
| CMO | College, AK | 25.1 | 258.1 | 64.9 | 147.8 |
| SIT | Sitka, AK | 29.8 | 277.1 | 57.1 | 135.3 |

### Locations of Observatories—Canada

| | | | | | |
|---|---|---|---|---|---|
| ALE | Alert | 4.0 | 165.2 | 82.5 | 62.5 |
| BLC | Baker Lake | 16.2 | 317.7 | 64.3 | 96.0 |
| CBB | Cambridge Bay | 13.2 | 297.3 | 69.1 | 105.0 |
| FCC | Fort Churchill | 21.3 | 325.0 | 58.8 | 94.1 |
| GLL | Glenlea | 30.6 | 325.2 | 49.6 | 97.1 |
| GWC | Great Whale River | 23.5 | 349.5 | 55.3 | 77.8 |
| MEA | Meanook | 28.0 | 303.0 | 54.6 | 113.3 |
| MBC | Mould Bay | 10.6 | 258.3 | 76.2 | 119.4 |
| OTT | Ottawa | 33.3 | 353.4 | 45.4 | 75.6 |
| RES | Resolute Bay | 6.8 | 292.9 | 74.7 | 94.9 |
| STJ | St. John's | 31.8 | 22.9 | 47.6 | 52.7 |
| VIC | Victoria | 35.6 | 294.7 | 48.5 | 123.4 |
| YKC | Yellowknife | 20.8 | 295.4 | 62.4 | 114.4 |

The data are available on magnetic tape at the following costs; Two (2) observatory years on one (1) tape at 9 track, 1600 bpi, ASCII or EBCDIC for $100; Six (6) observatory years on one (1) tape at 9 track, 6250 bpi, ASCII or EBCDIC for $115.

To order, either call (303) 497-6475 or write the National Geophysical Data Center, Solar-Terrestrial Physics Division (E/GC2), 325 Broadway, Boulder, CO 80303 U.S.A. With your written request please include check or money order payable in U.S. currency to COMMERCE, NOAA/NGDC. Payment may be made through American Express, MasterCard or VISA credit cards. Please include the correct name of credit card holder, card number, and expiration date. Prices are subject to change.

## NATIONAL GEOPHYSICAL DATA CENTER