

Publikasjoner fra
DET NORSKE INSTITUTT FOR KOSMISK FYSIKK
Nr. 39

GURO GJELLESTAD
PER EINBU†, HELGE DALSEIDE

THE MAGNETIC STATION AT DOMBÅS

(New location: $\varphi = 62^\circ 04'.4$ N, $\lambda = 9^\circ 07'.0$ E Gr.)

DESCRIPTION OF THE NEW STATION *and* OBSERVATIONS 1952

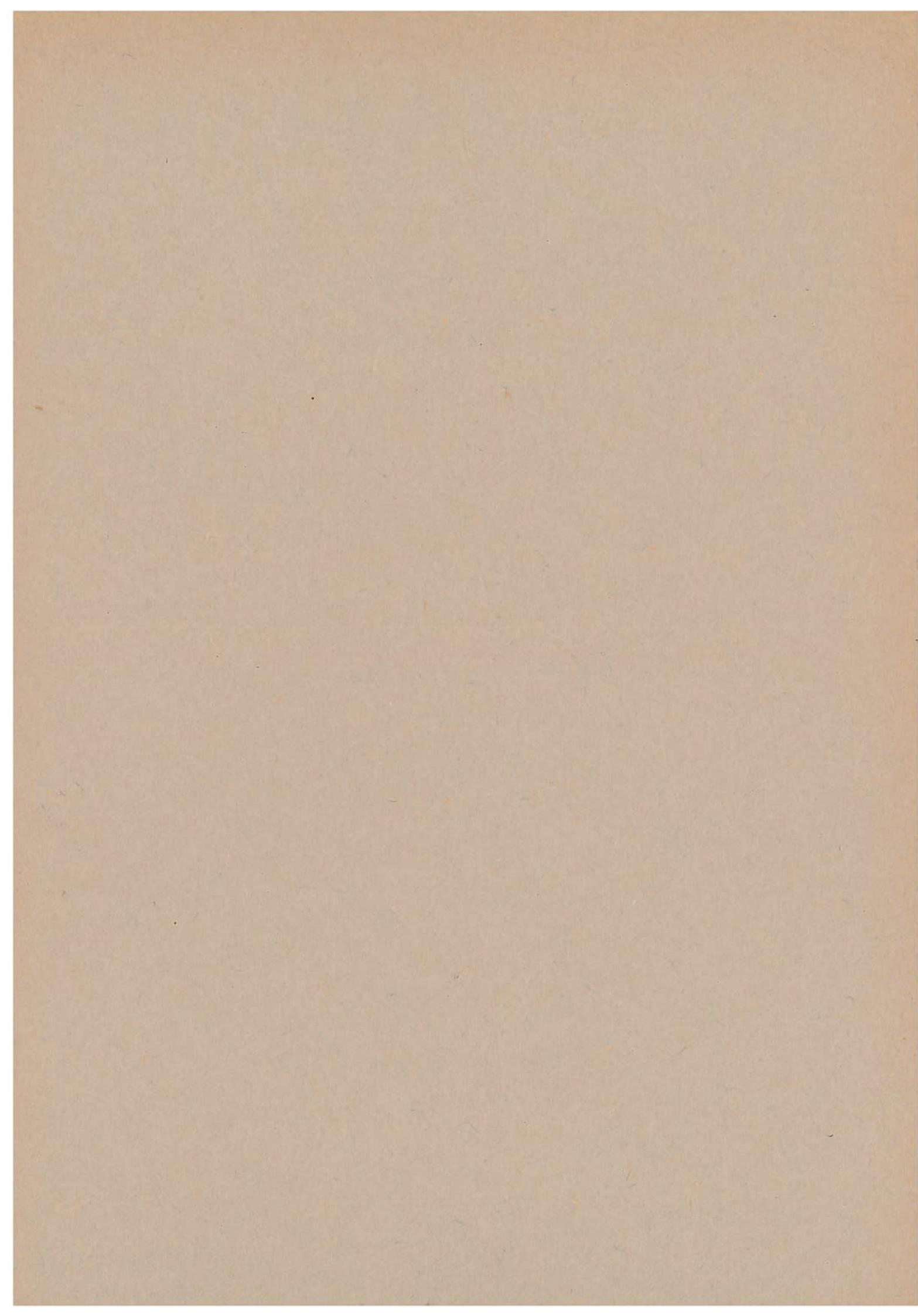
APPENDIX
(Storminess Values for 1949—1951)

WITH A PREFACE BY
THE DIRECTOR OF MAGNETISK BYRÅ

Published by
MAGNETISK BYRÅ
BERGEN, NORWAY

1957

A.S JOHN GRIEGS BOKTRYKKERI, BERGEN



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by

GURO GJELLESTAD and PER EINBU †

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by

GURO GJELLESTAD and HELGE DALSEIDE

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PREFACE

The magnetic observatory at Dombås is operated as a mountain station. The station is administrated by Magnetisk Byrå in Bergen, while a resident of Dombås is employed as a part time assistant to supervise the installations and make necessary magnetic measurements. Magnetograms and other observations are sent to Bergen at regular intervals for reduction and publication, and then kept permanently on file at Magnetisk Byrå.

Mr. *Per Einbu* was resident observer and assistant in charge of the station until his death in December 1955, and on March 15, 1956, his brother Mr. *Knut Einbu* took over. At those periods when Mr. *Per Einbu* was not able to carry out his duties, his wife and brother shared the responsibilities for the recordings (changing and developing paper), while Mr. *J. Frøshaug*, on occasion, made some absolute measurements. As the travelling distance between Bergen and Dombås is long, responsibility for the performance of the station, magnetic measurements etc., must to a great extent lie with the resident observer, but inspections of the observatory have previously been undertaken by a representative of Magnetisk Byrå at irregular intervals, approximately once a year. During the difficult period of 1955 and 1956 the station was under the supervision of Miss *Guro Gjellestad* on behalf of the Director, and she made prolonged visits to Dombås in June and September/October 1955 and in March and May/June 1956. During these visits she made an extensive magnetic survey of the site, re-adjusted some of the variometers, made numerous magnetic measurements, and trained the new resident observer in his duties.

The new magnetic station at *Dombåshaugen* replaces the old station on the farm *Brennøygarden*, which had been in operation since 1916. It had been felt for some time that the old station did not satisfy the modern requirements of a magnetic observatory, partly due to the location, partly to unsatisfactory instrumentation, and it had been considered whether it might not be necessary to discontinue recordings at Dombås, since sufficient funds for building a completely new observatory could not be acquired. After the Second World War, however, a solution was found. We were fortunate in finding a suitable house at a more convenient location, approximately $1\frac{1}{2}$ km (1 mile) east of the old station; a house which had been built by the German Occupation Forces in Norway. A preliminary magnetic survey gave indications that the site was acceptable, and arrangements were made with the owner of the site for renting the house with surrounding grounds. After minor changes the house could be taken into use as a variometer house for continuous recordings with a set of new La Cour variometers. In 1953 the absolute house was transferred from the old station and erected on the new site. After a «running-in» period of some months, continuous recordings started at the new site in Spring 1951, and the old station was discontinued after a short interval of parallel recordings. The new station has been gradually improved when funds were made available, but more improvements are desirable.

The preparation of the present publication has been undertaken by Miss *Gjellestad* with the assistance from the late Mr. *Per Einbu* and Mr. *Helge Dalseide*. The description of the new

station in Chap. I is written by Miss *Gjellestad* after a rough out-line had been prepared jointly by her and Mr. *Einbu* in September 1955. It should be pointed out that all original installations were put in by the late Mr. *Per Einbu*, while Miss *Gjellestad* was appointed to her present position with Magnetisk Byrå in March 1955, and thus did not have an opportunity to follow at first hand developments during the installation period and the first 4—5 years of operation of the new station. On the other hand, Miss *Gjellestad* is responsible for several improvements in recent years. The *old* magnetic station at Dombås was planned for giving *relative* (storminess) values. For the *new* station *absolute* values will be given, starting with the observations in 1952, and they are presented in Chap. II. The reductions of the observations in 1952 are made by Miss *Gjellestad*, with the assistance from Mr. *Dalseide*. For the year 1951 storminess values have been calculated for the new station also, and they have been included with results from the old station for the years 1949—51 in an Appendix to the present publication. Calculations of the storminess values 1949—51 have been undertaken by Mr. *K. F. Wasserfall* with the assistance from Mr. *Dalseide*. All drawings are made by Mr. *Dalseide*.

I wish to extend my most sincere thanks to all those mentioned above, who have contributed to the results presented here. In particular, I would like to express my gratitude to Mrs. *Astri Einbu* for the assistance she gave to her husband with the installations in 1950/51 and during his periods of illness, and for her willingness to take on responsibility for the recordings after his death until Mr. *Knut Einbu* took over. I would also like to thank the staff of the *Danish Meteorological Institute* in Copenhagen for their generous assistance and advice during the installation period and later improvements of the station, for calibration of instruments etc.

Bergen February 1957.

B. Trumpy
Director.

PER KOLBJØRN EINBU

1911—1955



It is with deep sorrow we regret to announce the death of *Per Kolbjørn Einbu*, civil engineer in Chemistry, on December 28, 1955, after long periods of illness. *Per Einbu* was born on August 17, 1911, son of the well known amateur Astronomer *Sigurd Einbu* and wife *Helga Einbu*. *Per Einbu* graduated in 1935 from the Norwegian Institute of Technology in Trondheim with the degree of civil engineer in Chemistry. He was an exceptionally talented man with a remarkable aptitude for and devotion to scientific work. Unfortunately a serious illness from which he had suffered from an early age prevented him from reaching the heights of the career one might have expected under different circumstances. After graduating he continued his scientific studies at the Institute of Technology as a research assistant, collaborating with Drs. *Flood*, *Holstmark* and *Westin*, on a variety of problems in Chemistry and Physics. It was during this period he had the first serious attack of the illness from which he never completely recovered.

His interest in research did not fail him even during periods of hospitalization. For instance, during a stay for treatment at Lyster Sanatorium he took up in 1942–45 studies of physical and chemical problems relating to his disease, doing respiration tests of the patients, and afterwards making a thorough statistical analysis of the results. After the war he returned to Dombås, and in 1946 he was put in charge of the magnetic station. When it was decided to move the station, *Per Einbu* was authorized to make the installations at the new site, and this task he undertook with great skill and accuracy, greatly helped by his wife *Astri Einbu*. Magnetisk Byrå has been most fortunate to have had such an exceptionally capable man as *Per Einbu* in charge of the station at Dombås, particularly at the time of the installation and «running-in» of the station, and there is no doubt that it was due to *Per Einbu* that the new station has reached such a satisfactory standard. One must admire his ingenuity, his patience and his skill in establishing and running the new station with limited economic support and instrumental equipment. One must also admire his courage, his devotion to his work, and his endurance in the carrying out his duties, though in poor health, during the hard Winters at this out-of-the-way observatory.

Per Einbu had various interests. He was known as a brilliant bridge- and chess-player and he was also a useful man to the small community at Dombås, and was for some time employed in survey work for the County. *Per Einbu* was a pleasant man with a dry sense of humour, and his death is a great loss to all those who met him.



Fig. 1. View to the east; variometer house to the left, absolute house to the right.
(Photo G. G., June 1955).

I. DESCRIPTION OF THE NEW STATION

by

GURO GJELLESTAD and PER EINBU †

1. INTRODUCTION

The framework of the description to be presented here was prepared jointly in September 1955, while the final manuscript was written by one of us (GG) when supplementary information had been obtained by studies of notes and correspondence (from PE) and by renewed inspections of the station. The presentation cannot be as complete as one would wish, for several reasons. Originally the variometer house was built by the German Occupation Forces, and it has not been possible to obtain detailed plans of the construction. Most of the instruments in use at the new station have been received as gifts from other institutes or laboratories or have been acquired secondhand, and their history is not known in detail. Another difficulty arises from the fact that one of the authors, who put in the original installations and who was more familiar with the station than most of us, died before the report was completed, while the other author was unable to follow developments from the start.

The back-ground for the selection of the site for the new station has already been mentioned in the Preface. It was necessary to find a *house* that could be made into a variometer house at moderate expense, and which was not situated too far from the old station and was within walking distance from the observer's home, and reasonably free from magnetic anomalies. One of us (PE) inspected several of the buildings set up by the German Occupation Forces at Dombås and was fortunate in finding one that appeared to satisfy these requirements.

2. GEOGRAPHICAL LOCATION OF THE NEW STATION

Geographic co-ordinates $\varphi = 62^\circ 04'.4$ N. $\lambda = 9^\circ 07'.0$ E Gr.
 Geomagnetic co-ordinates $\Phi = + 62^\circ 3.$ $A = 100^\circ 1.$
 Altitude 660 meters (2165 feet) above sea level.

The geographic co-ordinates being known, the geomagnetic co-ordinates have been calculated according to formulae given by Chapman and Bartels (1940, Chap. XVIII, Section 18.4). The co-ordinates of the geomagnetic North Pole used for the calculations of the geomagnetic co-ordinates are those recommended by the Committee on Observatories of I. A. G. A., $78^\circ 5$ N and 69° W, respectively.

The new magnetic station is located on the S-SW slopes of *Dombåshaugen*, approximately 1 km (0.6 miles) west of Dombås railway station on the Oslo—Trondheim line and approximately $1\frac{1}{2}$ km (1 mile) east of the old magnetic station at *Brennøygarden*. The rough sketch in *Figure 2* shows the relative positions of the old and new magnetic stations (*OS* and *NS*) and the railway station; also the central part of Dombås, at a distance of 600—700 meters (appr. 700 yards) and Dombås Turisthotel (*T*) are indicated. The Oslo—Trondheim and Dombås—Åndalsnes lines are shown and also the main roads. There is a narrow road running round the hill, below it, but there are no roads on the hill itself, only paths. From the Tourist hotel (*T*) there is an easy walk to the top of the hill to the magnetic station.

The hill is encircled by mountains at distance 5 to 20 km (3—12 miles). They range from heights of about 1200 meters to 2000 meters (3900—6600 feet) for those at some distance. The view from the observatory past the wide valleys towards these distant mountains deserves to be mentioned as it is beautiful and impressive, making the observatory a pleasant and inspiring place in the warmer months. It is unfortunate that the photographs only appear in black and white as the coloring of these mountains is famous and is considered one of the attractions of this wellknown skiing and hiking resort. The autumn colors are marvellous with the dark green of the pines serving as a background for the flaming oranges and reds of the fading birches and sycamores, and sometimes capped by a shining helmet of snow. The Winter, on the other hand, is long and hard and not very pleasant. Temperatures may go down to -20 to -30° C (-4 to -20° F) and remain there for months in Mid-Winter, winds may be strong all through the year and are particularly unpleasant in the cold season; snow falls heavily on the hill, and the variometer house may be partly covered for several months, the absolute house is cold and draughty, and altogether it is not too pleasant for the resident observer who has his daily duties at the station. Skis are essential for several months.

3. GENERAL DESCRIPTION OF THE SITE; MAGNETIC CONDITIONS

The observatory site and surrounding parts of the hill are very uneven, as may be seen in the reproduced photographs. From the absolute house the hill falls abruptly towards the south and west, somewhat less so towards the north, while it ascends slowly towards the east. The site of the magnetic station is stony, the main constituent being *Phyllite*, the soil is shallow and poor, and consequently the vegetation consists for the most part of juniper, pines, a few birches and some dry, stiff grass, typical of dry mountain ground.

The owner of the site lives at a farm 60—70 meters away to the north of the observatory, the fence round the farm and stores (mainly wooden building material) are somewhat closer,

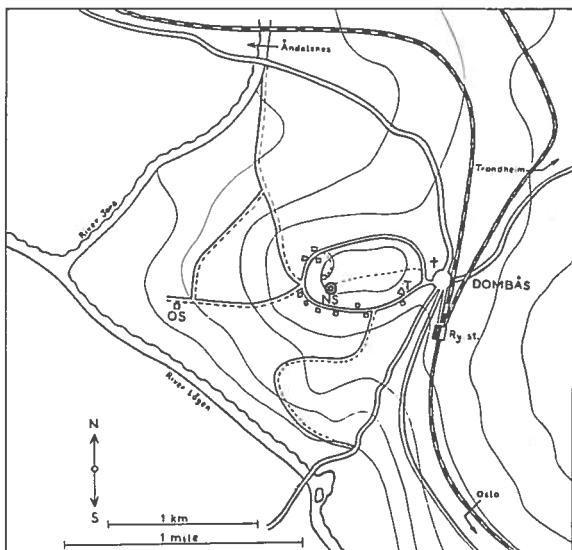


Fig. 2. Sketch of the new magnetic station (NS) with surroundings, including the village of Dombås and the railway station, the old magnetic station (OS) and Dombås Turisthotel (T).

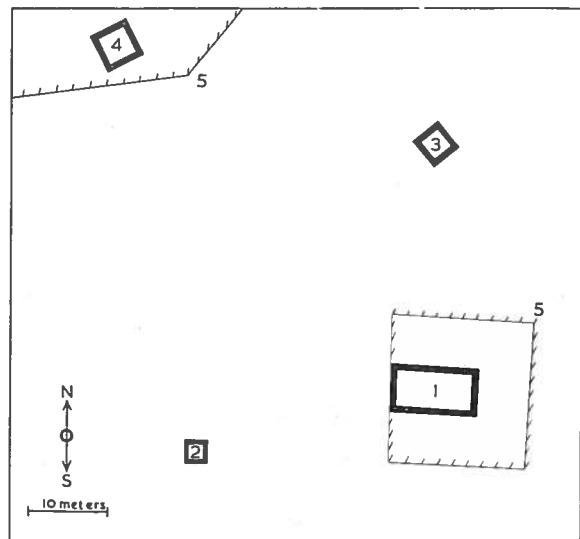


Fig. 3. Plan of observatory site with surroundings. Numbers refer to: (1) variometer house, (2) absolute house, (3) unoccupied cottage, (4) owner's new dwellinghouse, (5) fence.

and also his new dwellinghouse erected in Summer 1956. An old cottage, not in use, is at a distance of 25 meters from the variometer house. Below the hill, to the south, south-west and south-east are more farms at greater distances. Another rough sketch, *Figure 3*, shows the arrangement of the houses on the S-SW part of the hill.

The mean values of the magnetic elements at the new magnetic station appear to be roughly the same as those to be expected for the site from the latest available isomagnetic charts (1951 and 1955), when secular variations are taken into account.

As pointed out in the Preface a preliminary magnetic survey made at a few points of the site before establishing the new station, indicated acceptable magnetic conditions. In September 1954 one of us (*PE*) discovered, by chance, an anomaly in the vertical component at a point approximately 10 meters to the north of the absolute house. Joint measurements by the authors in June 1955 confirmed the anomaly, and it was decided to make a more extensive magnetic survey of the site and surroundings to establish whether more anomalies might be present and determine their significance. The survey was to be shared between us. *GG* covered the larger area of approximately 60×100 meters, centered at the variometer house, and observations were made at stations uniformly spaced over this area at 10 meters intervals, while suspicious points were surrounded by a denser net of stations. Also several points close to the two houses were measured. Unfortunately *PE*'s survey was interrupted by his illness, but he measured the region between the two houses and some grid points. Altogether 125 points were measured in *Z* and 45 points in *H*, and several series were obtained at each station. The preliminary results of the survey in 1955 establishes with some certainty that at least in *Z* (measured by *GG*), the site as a whole shows a fairly uniform distribution. From the fewer observations (by *PE*), the same also appears to be true for *H*. Further, as far as the preliminary results go, it may be fairly well established that the farm to the north, including fence, stores and the abandoned cottage, does not give any significant magnetic effect at the permanent place of our instruments. The same is true for the establishments below the hill. The survey further disclosed a few more anomalous points, some anomalous in *Z* and some in *H*, but apparently the anomalies are of small extension, and their effect cannot be traced at some distance, say, 6–8 meters. An inspec-

tion of the surface at some of these points indicates that the anomalies may have an artificial cause, and be related to activities during the construction period. Some points close to the western side of the variometer house need further inspection. Observations close to the recording room are satisfactory. Results were obtained there that were in good agreement with the mean for the whole measured area. Unfortunately the absolute house appears to be situated in a slightly anomalous region, when the mean for the whole measured area is taken as standard. Samples of stone presumed representative for the site have been studied by Dr. Kvale of the University of Bergen, and he could discover no appreciable magnetic material in the samples. The preliminary survey in 1955 confirms that the site does not satisfy the requirements stated by McComb (1952), but on the whole, the site compares favourably with most other places in this mountainous country.

With respect to possible magnetic disturbances, they are not likely to be of any importance. Dombås is primarily a rural society and a tourist center, with a small population (1000). No industry is known to be close enough to the observatory to introduce artificial magnetic disturbances, and the two railroads are not electrified. Farming was discontinued some years ago at the property to the north, and we have so far experienced no activity there or from the farms below the hill that might disturb the recordings or the absolute measurements. Occasional artificial disturbances may perhaps arise when in Winter the protecting fence round the variometer house may be partly covered by snow and skiers may pass at close distance or even use the roof for a rest. These disturbances, if present at all, are not likely to be important and in all circumstances are only sporadic.

4. THE BUILDINGS

The observatory disposes of a rented variometer house for continuous magnetic recordings and from 1953 an absolute house, which had been transferred from the old station. The distance between the two buildings is approximately 23 meters. Photographs of the buildings are reproduced in *Figures 1, 4, 5, and 11*.

The *variometer house* was erected by the German Occupation Forces in Norway during the latter part of the Second World War. It may perhaps be described as a concrete cellar with a roof, covered with slates, on a wooden construction, and is partly under ground (blasted into the sloping hill). As far as we know iron re-inforcement has not been used, but some magnetic material may be present in the original construction, for instance, iron nails. Special care has been taken that only non-magnetic material should be used in the closer vicinity of the recording instruments. The concrete floor rests on rock and stones. Size: 11×7 meters external measure, heights about 2 meters, thickness of walls 0.5 meters. A wooden floor 10—15 cm above the concrete floor carries the inner wooden partition walls. *Figure 6* shows a ground plan of the house. In the eastern part of the house is the recording room, *A*, 4×6 meters, and inside this room a smaller space, *B*, 2.55×2.75 meters, has been separated by wooden walls. The rest of the house is divided into a corridor *G* and four rooms, *C, D, E* and *F* that are at present being used for photographic darkroom, office and stores, respectively. In room *F* is all the electric equipment apart from the battery for emergency power, which is in a corner of the room *E*. The inner smaller partition *B* contains the variometers on a compact concrete pier (1) with a top plate of schist, the optical system, a thermostat (3), and an electric heater (6), while the surrounding part of the recording room holds the recorder (2), the clock (4) and another electric heater (7). The electric heaters contain very little magnetic material, while the thermostat has some magnetic effect, the effect being well defined by a small jump in the base line value of *H* at the time of installation, June 23, 1952. On the *Z*-and *D*-variometers the thermostat has



Fig. 4. View to the north-west; absolute house. (Photo G. G., June 1955).



Fig. 5. View to the north-west; variometer house. (Photo G. G., June 1955).

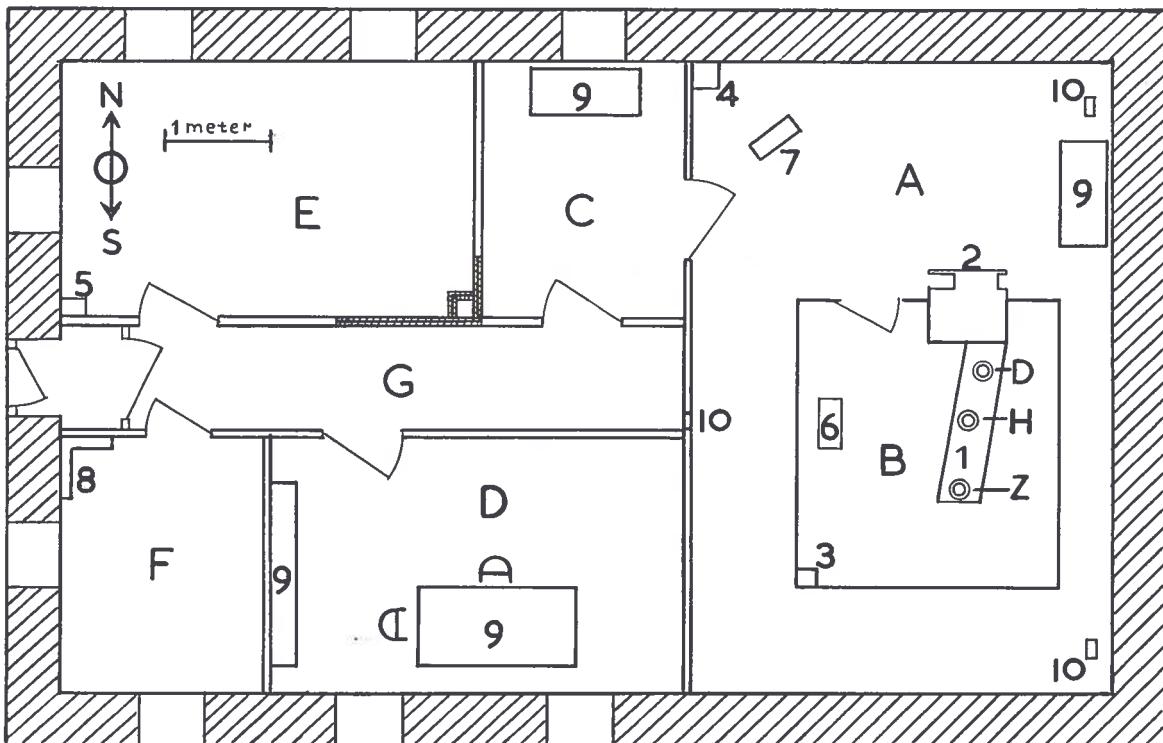


Fig. 6. Ground plan of variometer house. Capital letters refer to: (A) and (B) recording room, (C) photographic darkroom, (D) office, (E) and (F) stores, electric equipment, (G) corridor. — Numbers refer to: (1) pier with variometers, (2) recorder, (3) thermostat, (4) clock, (5) battery for emergency power, (6) and (7) electric heaters, (8) electric equipment (transformer, relay etc), (9) tables and shelf, (10) ventilators.

no appreciable effect. Special care has been taken in insulation of the recording room. Stones and soil have been piled up against the external walls in the eastern part of the house, all up to the roof (refer to *Figure 5*) and internally layers of wooden chips above the ceiling and between double partition walls secure a fair amount of protection against the cold. A double door in the western wall is the only entrance to the house and wooden covers are available for all windows. A system of adjustable ventilators (10) and a reasonable amount of electric power has made it possible to keep the recording room fairly free from moisture and at a constant temperature for long periods of time. In earlier years the temperature was kept at + 10° C during the Winter months and at + 15° C the rest of the year, while from December 1955 when more electric power has been available, the temperature is kept at + 15° C ($\pm 0.1^\circ$) all the year round. — A wooden fence has been put up round the variometer house to prevent traffic close to the recording instruments.

The *house for absolute measurements* is a simple wooden construction, approximately 3×3 meters. For economy reasons no cellar could be built under the house, and it does not therefore rest directly on the rock; the soil was removed to some depth and refilled by stones, on which the house and three wooden observation poles were erected. Care is taken that there should at no time be contact between the observation poles and the wooden floor. The house has been tied to some of the larger stones by non-magnetic wires. The heavy winds that are not unusual at this place may at times shake the house quite considerably due to its light construction. The house is not insulated, and no artificial heating can be used. The white-painted wooden window covers may be turned down to an approximate horizontal position to serve as reflectors for lights for the instruments, but in Winter time and on rainy days the lights may be extremely poor.

5. RECORDING EQUIPMENT

A set of *La Cour variometers* (*D*, *H*, and *Z*) have been installed. Apart from minor details the arrangement is almost identical with the «*insensitive arrangement*» at *Thule*, and we refer to description by V. Laursen (1943). The *D*-variometer («*Le Déclinomètre de Copenhague*»), the *H*-variometer («*Le Variomètre de Copenhague*») and the *Z*-variometer («*La Balance de Godhavn*») have been described in detail by V. Laursen (1943), by D. La Cour and V. Laursen (1930) and by D. La Cour (1930), respectively.

Orientation of the variometers:

D-variometer, magnetic axis in the magnetic meridian,

H-variometer, magnetic axis in the plane normal to the magnetic meridian, north end of magnet towards east,

Z-variometer, magnetic axis horizontal and approximately in the plane normal to the magnetic meridian, north end of magnet towards west.

Scale values are of the order:

D, 9.6 gammas per mm or 2.4 minutes of arc per mm,

H, 9.0 gammas per mm,

Z, 7.6 gammas per mm.

The above values refer to the time of installation. Please refer to *Table 1* in § 7 for details.

The *H*- and *Z*-variometers are equipped with optical temperature compensators. Determination of the *temperature coefficients* were made by one of us (*PE*) in 1951 and are:

$$\begin{aligned}\tau_H &= 0.06 \pm 0.10 \text{ gammas per degree Celcius,} \\ \tau_Z &= 0.01 \pm 0.10 \text{ gammas per degree Celcius.}\end{aligned}$$

The *recorder* and the two recording lamps are of the types described by V. Laursen (1943). Speed of recording is 15 mm per hour. Three small scale lamps, one for each element, controlled by a clock, give vertical hour mark lines across the curves, approximately 9—10 cm long for each element. The hour marks may be generally correct within ± 1 minute. A new clock-work was installed in Fall 1956.

In Figures 7 and 8 are reproduced photographs from the recording room, showing the arrangement of the variometers, the optical system, including prisma, recording and hour mark lamps. To the left in Figure 7 is seen an adjustable resistance for one of the recording lamps. Another resistance for the second lamp is installed in the room marked *F* in Figure 6.

An electric transformer and a rectifier of commercial type in the room marked *F* (8) in Figure 6 transforms the commercial 220 V ac-current into proper dc-current for the recording and hour mark lamps, while an electric relay (room *F*, (8)), automatically connects the 6 V battery to the recording system when the commercial power is cut off. Installed are a «Bell transformer» (produced in England), a «Noratel» transformer and rectifier (produced in Norway) and a «Selen Rectifier», produced by Standard Telefon og kabelfabrik A/S (Norway). The Mercury relay has been delivered by Elektrisk Bureau.

A double set of full-drawn curves are recorded to secure recordings if one lamp should happen to burn out. This is necessary since the resident observer will usually inspect the station only once day, and only one set of recorders is installed.

As a demonstration we have in Figure 9 reproduced in natural size a three-hour section of a magnetogram from the new station. The section is in the interval 11^h 30^m to 15^h 00^m GMT on October 13, 1952. The chosen interval is slightly disturbed (*K*=1). Two sets of curves and base

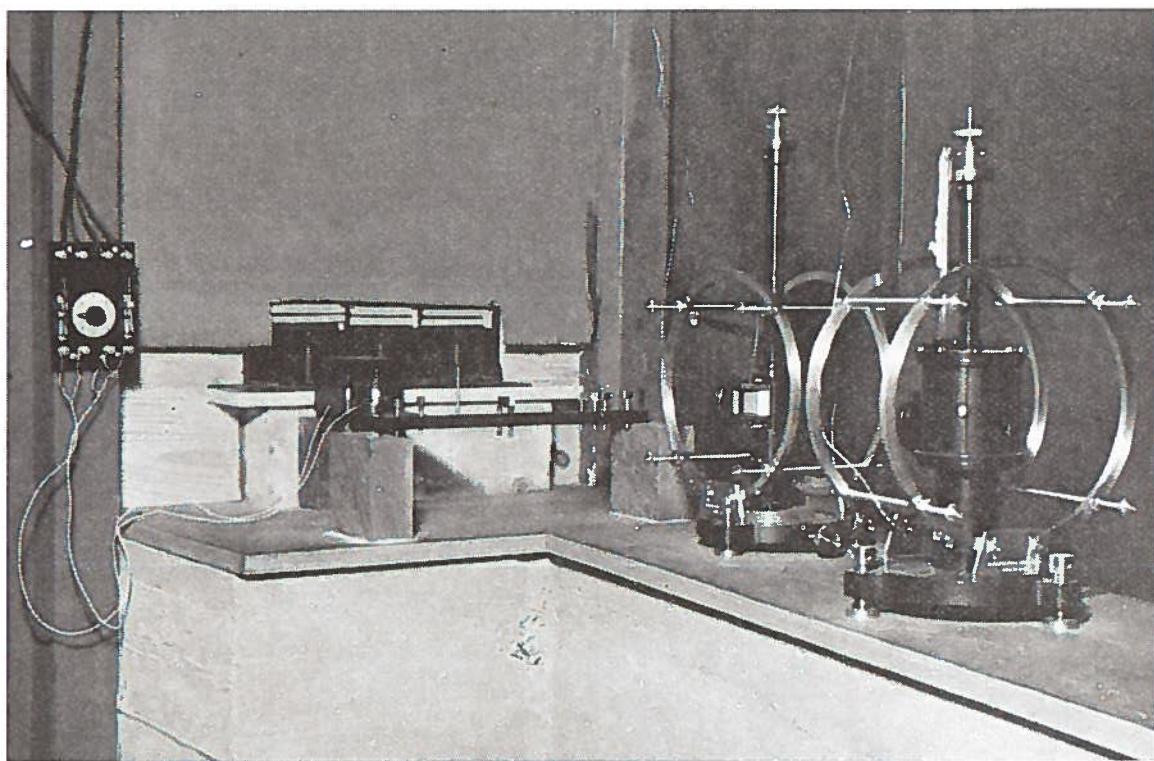


Fig. 7. North end of pier with *D*-(left) and *H*-variometers, optical system. On the wall to the left may be seen the adjustable resistance for one of the recording lamps. (Photo Wikran).

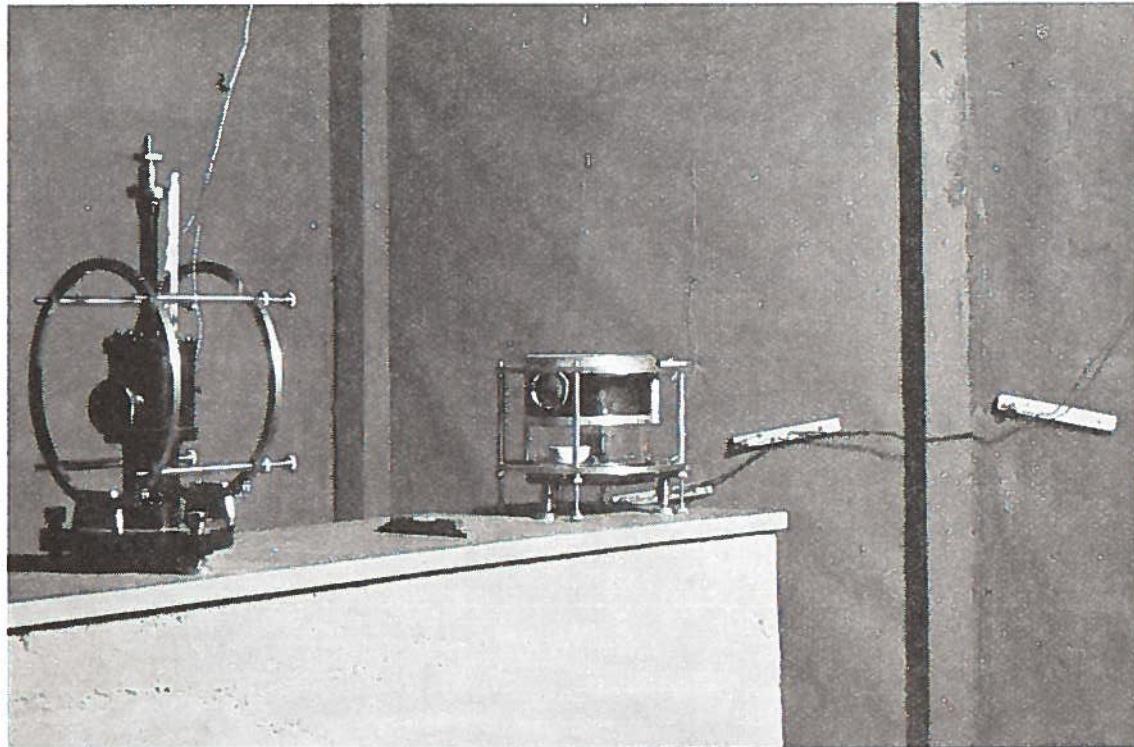


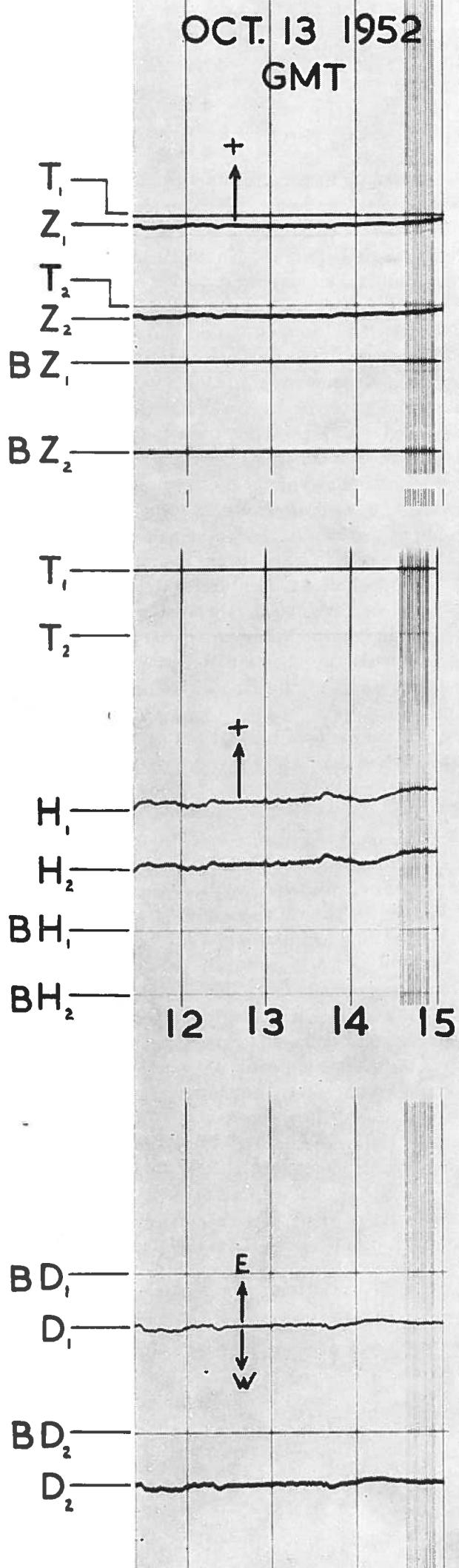
Fig. 8. South end of pier with the *H*-(left) and *Z*-variometers. On the wall in the back-ground may be seen the three hour mark scale lamps. (Photo Wikran).

Fig. 9. To the right — natural size reproduction of a three-hour section of a magnetogram from the new station (1952, October 13, 11^h 30^m—15^h 00^m GMT). Explanations to the curves are given on the reproduction in conventional notations. Additional time traces appear in the interval 14^h 34^m—14^h 53^m GMT when absolute measurements were made. The reproduced section is representative for a slightly disturbed interval ($K = 1$.)

lines are shown for all three elements and temperature curves for H and Z . Explanations to the curves are given in the Figure in conventional notations. For accurate timing of absolute measurements vertical time traces are produced on the magnetogram. Some of these traces are also seen in the Figure, in the interval 14^h 34^m—14^h 53^m GMT. — During storms some of the curves may move out of the space reserved for an element, but then a storm curve comes in from the opposite side to secure recordings.



Fig. 10. View to the south. Field measurements at a point just below the absolute house. Azimuth mark is a break in the skyline; the pole in the foreground points just to the right of the mark. Stormy day in September 1955. (Photo G. G.).



6. ABSOLUTE MEASUREMENTS

Absolute measurements were for some time made on an out-door post at the place of the present absolute house, that was erected in September/October 1953.

Absolute observations of H are made with QHM 15 and 78. The two theodelites (Tessdorff No. 2179 and Bamberg No. 9631) are old, but reliable, if not perfect. Observations of Z have been undertaken with BMZ 16 and on occasion a BMZ has been borrowed from other institutes for a check. A supplementary BMZ (No. 160) has been purchased, and has been installed in February 1957. Some attempts have been made to employ an old Bamberg declinometer and QHM for absolute observations of D , but for various reasons these instruments are not suitable for use at the new station. Our base line values for declination rely therefore almost entirely on observations made with a magnetometer produced by Elliott Bro.'s, London (No. 38), now equipped with a telescope from the Bamberg No. 9631 declinometer. The optical parts of this combined instrument are very good and suitable for our use, but the scales on the Elliott base are somewhat worn and the readings are not entirely satisfactory. The great scatter in the D -measurements is probably to some extent due to the unsatisfactory condition of the scales. Some improvements have been made recently in the observations after the silk thread has been substituted by a thin, strong nylon thread with negligible torsion.

For technical reasons (refer to §§ 2 and 3) no fixed azimuth mark could be erected on the hill, and we have had to rely on objects already present in the landscape. Due to distances these objects have to be quite large, and some houses on the other side the valley have been used, especially during the experimental stage at the new site. For some years we have now been using as an azimuth mark a distinct feature (V -shaped) on a distant mountain (distance: 10 km or 6 miles).

By means of a contact-button in the absolute house electric signals may be sent to the clock in the variometer house, and time traces are produced on the magnetogram, facilitating accurate timing of the observations.

The *precision of the absolute measurements* is not easy to define, but we suppose we are not much in error if we state it in the following way: The scatter in H - and Z -measurements *with respect to a mean value* (adopted base line value) may run to ± 5 gammas when longer periods of time are considered, say, one week or two, while the scatter in measurements made on the same or, say, two consecutive days, may under favourable conditions be ± 1 gamma. The corresponding results for D may be perhaps ± 2.4 minutes of arc (± 10 gammas) and ± 1 minute of arc (± 4 gammas), respectively. The uncertainty stated above is probably due to a complex of circumstances. In addition to unavoidable uncertainties in the actual measurements, some uncertainty will always be entered during the reduction of the observations, for instance, in scaling of the magnetograms, particularly during disturbed periods, and also through incomplete knowledge of possibly variable instrumental coefficients. The latter is, in particular, true for the semi-absolute instruments employed for H - and Z -measurements, which have to be calibrated at an observatory where absolute instruments are available. The constants of QHM 15 and 78 have not changed appreciably during the time they have been in our possession. The instrumental «constants» of BMZ 16, however, appear to have varied with time; part of this variation may have an artificial cause and may have been introduced in connection with field work, while part of the variation apparently is of intrinsic origin. This fact together with a quite considerable change in the actual base line values of Z (refer to § 7) has at times made it difficult to establish the correct (adopted) base line values. The scatter in the D -measurements may, as mentioned above, be partly due to unsatisfactory scales, but probably some errors are introduced by the azimuth mark. Due to meteorological conditions and the large distance, the azimuth mark often is unsharp when seen through the telescope, and at times it appears displaced, pro-

bably due to turbulence in the air. Further, the azimuth mark is at an altitude of approximately 1100 meters (3600 feet) as compared to the observatory at 660 meters (2165 feet), and it is feared that this may introduce systematical errors in the observations. On the other hand, when meteorological conditions are good, the chosen azimuth mark can be seen clearly against the sky. The photograph reproduced in *Figure 10* is taken on a stormy day during field measurements in September 1955 from a point 20 meters south of the absolute house, at a 10 meters lower level, and gives the view towards the south. The azimuth mark is a break in the skyline and the pole in the foreground points a little to the right of the mark. The fixed azimuth mark can just be seen on the original photograph, and it is feared that it may perhaps not be visible in the reproduction. We have been considering trying to find some other arrangement for azimuth mark in connection with a movement of the absolute house, but the problem is not a simple one, and we do not know yet whether a better solution may be found. — As will be apparent when the results of the observations are presented, we have preferred to keep the base line values of the declination constant during long periods of time, rather than following the «up-and-downs» of the real measurements.

The semi-absolute instruments (QHM 15 and 78, BMZ 16) have in the past been calibrated at irregular intervals at Rude Skov Observatory, and on occasion at Lovø and Tromsø. In the future we are planning to have some of our instruments calibrated at least once a year.

7. SCALE VALUE DETERMINATIONS, ORIENTATION TESTS

Scale value determinations and orientation tests are made according to standard electromagnetic methods (see, for instance, McComb (1952, Chaps. 11,12)). Several improvements have been made in the equipment recently. In Spring 1956 three Helmholtz-Gaugain coils were installed, while previously only one coil was available. Then, to simplify the observations an adjustable electric resistance was made and a simple device for damping the oscillations of the variometer magnets when deflected by a strong artificial magnetic field. The damping device was suggested by Dr. V. Laursen of the Danish Meteorological Institute. Finally a new and more accurate amperemeter has been purchased.

Series of *scale value determinations* in all three elements were made by one of us (PE) in 1950 and 1951, but due to special circumstances no more determinations were made until Spring 1956, apart from occasional checks during magnetic disturbances. In Spring 1956 one of us (GG) with the assistance of Mr. Knut Einbu obtained several series of good values for Z and D , but unfortunately only one series for H was acceptable, due to magnetic disturbances. The values obtained were in good agreement with those obtained in 1950 and 1951. From May 19 until June 2 recordings in Z were made with a borrowed magnet, and scale values were obtained for this magnet also. After re-installing the repaired Dombås magnet, new series of scale values were determined. Scale values are now being determined at least once every third month in each element, and several series are made if magnetic conditions permit. In recent months Mr. Knut Einbu has obtained more good series in all elements. Based on observations in 1950—51 and in 1956 the scale values given in *Tab'e 1* have been adopted. In *Table 1* the scale values for D are equivalent to 2.4 minutes of arc per mm. The scale values are believed to be correct within a few per cent.

Careful *orientation tests* were made by one of us (PE) during the installations in 1950 and 1951, but no more tests were made until June 1956. Then one of us (GG) with the assistance of Mr. Knut Einbu tested the H - and D -variometers for orientation, and the H -variometer was re-adjusted on June 6 and finally tested for correct orientation. The base line values of Z had been increasing at an average rate of 11 gammas per month since 1951, and at the same time the Z -curve had moved vertically on the magnetograms. This variation was puzzling, but it

was believed that the most likely cause might be that the recording magnet in the Z -variometer changed its magnetic moment. It was hoped for some time that the magnet might gradually stabilize without interference, but eventually it was decided that one could not wait for this to take place. A magnet was kindly put at disposal by the Danish Meteorological Institute to replace the Dombås magnet while the latter could be sent to Copenhagen to be repaired and subjected to a stabilizing process. Unfortunately the substitution could not be made according to plans in September 1955, but eventually was made on May 19, 1956 by one of us (GG), and on June 2, the Dombås magnet was replaced and the variometer properly adjusted. Before the adjustment it was apparent that the variometer magnet was far out of the horizontal plane, and it is likely that the mis-orientation has been quite considerable for some time and that some errors may have been introduced. However, the degree of mis-orientation in the period 1951—56 is not known and cannot be corrected for by direct methods. We may perhaps return to this question at a later stage. The stabilizing process appears to have had a good effect on the magnet, judging from the results of the absolute measurements, but there is still some unexplained increase in the Z base-line values. It is quite possible that this may be due to the magnet not having become completely stable or perhaps to the settling of the ground. — It is planned in the future to make orientation tests and if necessary adjust the instruments once a year when a representative of Magnetisk Byrå will be inspecting the observatory.

TABLE 1
ADOPTED SCALE VALUES

Interval starting	Interval ending	D γ/mm	H γ/mm	Z γ/mm
1951, Jan 1	1951, Dec 31	9.59	8.97	7.59
1952, Jan 1	1952, Dec 31	»	»	»
1953, Jan 1	1953, Dec 31	»	»	»
1954, Jan 1	1954, Dec 31	»	»	»
1955, Jan 1	1955, Dec 31	»	»	»
1956, Jan 1	1956, May 19	9.60	9.00	7.60
1956, May 20	1956, Jun 2	»	»	7.40
1956, Jun 3	1956, Jul 31	»	»	6.45
1956, Aug 1	1956, Oct 31	9.70	9.15	6.55
1956, Nov 1		»	9.25	»

8. REFERENCES

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Fig. 11. View to the north-east; absolute house in foreground, variometer house in background. (Photo G. G., June 1955).

II. OBSERVATIONS 1952

by

GURO GJELLESTAD and HELGE DALSEIDE

9. INTRODUCTORY REMARKS

We refer to Chap. I, in which has been given general information on instruments and installations at the new station, evaluation of the performance of the instruments and accuracy of observations and other information of more general character for the period 1951—56.

At Dombås the late Mr. *Per Einbu* in 1952 supervised the instruments and made magnetic measurements, while Mr. *J. Frøshaug* made some absolute observations in August. Scalings of the magnetograms for hourly mean values were undertaken by Mr. *Per Einbu*. In charge of reductions of recordings and observations and arrangement of the results for publication was author I.

No scale value determinations were made in 1952, and the scale values determined in 1951 were retained. They are given in *Table 2*. In *Table 2* the scale value 9.59 γ/mm (for D) is equivalent to 2.38 minutes of arc per mm.

Absolute measurements were in 1952 undertaken at irregular intervals, mostly 2—4 times a month in each element. During the most severe Winter months fewer observations were made; in November only one series was obtained and in December none. All absolute measurements were in 1952 made on an out-door post. In *Tables 3—5* are given adopted base line values, while the diagram in *Figure 12* gives both observed and adopted base line values. Each point in the diagram, with few exceptions, represents means of 2—6 series of measurements. The adopted base line values have, in accordance with usual procedure, been established by a graphical method. Some personal judgement has been employed, and less weight has been given to observations made under difficult circumstances. — Due to the large scatter in the D -mea-

TABLE 2
ADOPTED SCALE VALUES 1952

<i>D</i> γ/mm	<i>H</i> γ/mm	<i>Z</i> γ/mm
9.59	8.97	7.59

surements discussed elsewhere (Chap. I, § 6), a constant value has been chosen for 1952. The large increase in the *Z* base-line values has been discussed elsewhere (Chap. I, § 7) and is probably to a large extent due to changing magnetic moment of the recording magnet, while the irregularities in the curve may be partly due to incomplete knowledge of the instrumental coefficients of the semi-absolute instrument BMZ 16 (refer to Chap. I, § 6), partly due to possible disturbance of BMZ 16 in connection with field work. The jump in the *H* base-line value on June 23 is well defined and is caused by the installation of a thermostat in the recording room.

Temperature corrections are negligible. *Possible mis-orientation* of the variometers and *possible shrinking* of the photographic paper are not known.

In accordance with recommendation from IATME we are for the new station giving Tables of *absolute hourly mean values* in three elements, *D*, *H*, and *Z*, and *daily* and *hourly means* for all days and for the 5 international quiet and disturbed days. In a separate Table are given *monthly* and *annual means* for all days and for the 5 international quiet and disturbed days.

Scalings of the magnetograms for hourly mean values have been centered around half-hours, and Universal Time (GMT) has been used consistently in the Tables.

Magnetisk Byrå and the magnetic station at Dombås co-operate with the international central institute at De Bilt regarding K-indices and C-data for activity, sudden commencements, solar flare effects, etc., and for those data we refer to the IATME Bulletins.

To save labour and expedite reductions we have, starting with the observations in 1952, put the calculations and printing of magnetic tables on punched-card IBM machines in co-operation with the Geophysical Institute of the University of Bergen. We are indebted to Mr. John B. Hannisdal for assistance in arranging the observations for the machine.

MONTHLY AND ANNUAL MEANS

1952	All days			Quiet days			Disturbed days		
	<i>D</i>	<i>H</i>	<i>Z</i>	<i>D</i>	<i>H</i>	<i>Z</i>	<i>D</i>	<i>H</i>	<i>Z</i>
Jan	5° 24'.1 W	13869 γ	47504 γ	5° 25'.1 W	13874 γ	47502 γ	5° 23'.6 W	13872 γ	47501 γ
Feb	23.3	863	489	25.6	878	497	21.1	855	479
Mar	22.1	856	482	23.8	877	497	18.0	806	453
Apr	21.8	859	482	22.7	878	497	20.1	834	453
May	21.3	867	482	21.8	882	499	18.5	828	458
Jun	21.5	883	495	21.9	887	498	20.6	866	483
Jul	21.0	885	505	20.6	884	506	21.1	886	501
Aug	20.3	879	503	20.0	879	507	20.0	877	499
Sep	19.0	866	508	19.8	878	517	18.6	844	483
Oct	18.5	869	515	19.7	878	522	16.3	850	503
Nov	18.3	877	520	18.8	883	523	16.3	862	515
Dec	18.3	883	519	19.0	891	517	17.2	877	518
Mean	5° 20'.8 W	13871 γ	47500 γ	5° 21'.6 W	13881 γ	47507 γ	5° 19'.3 W	13855 γ	47487 γ

TABLE 3
ADOPTED BASE LINE VALUE
DECLINATION 1952

Jan 1—Dec 31 $5^{\circ}01'.2$

TABLE 4
ADOPTED BASE LINE VALUES
HORIZONTAL INTENSITY 1952

Interval starting	γ	Interval starting	γ
Jan 1	13680	Aug 6	13668
Jun 24	675	9	667
Jul 6	674	11	66
10	673	14	665
14	672	24	664
18	671	Sep 13	663
22	670	17	662
Aug 3	13669	21	13661

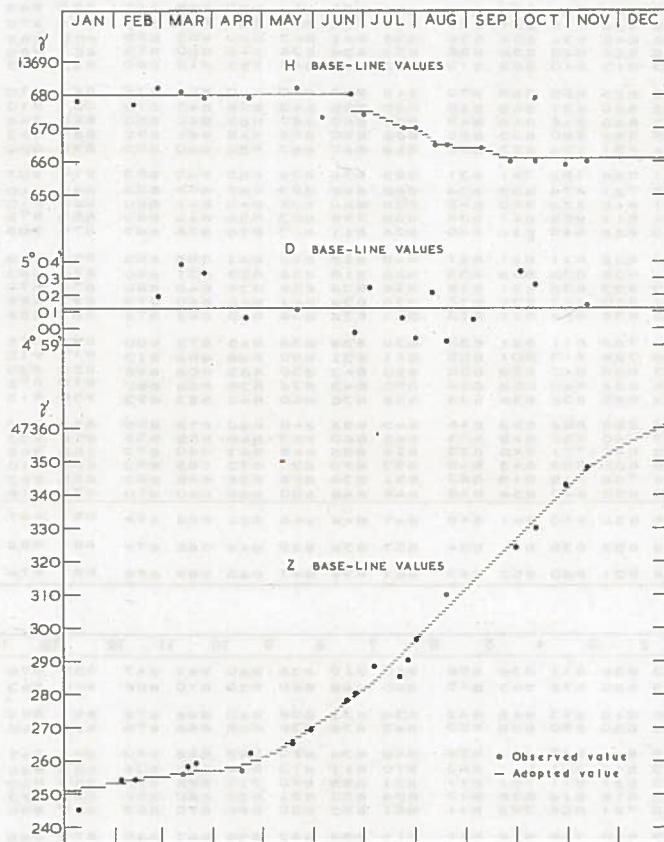


Fig. 12. Observed and adopted base-line values 1952.

TABLE 5
ADOPTED BASE LINE VALUES VERTICAL INTENSITY 1952

Interval starting	y										
Jan 1	47251	May 30	47270	Jul 17	47289	Aug 24	47308	Oct 1	47327	Nov 8	47346
11	252	Jun 2	271	19	290	26	309	3	328	10	347
26	253	5	272	21	291	28	310	5	329	12	348
Feb 7	254	8	273	23	292	30	311	7	330	15	349
18	255	11	274	25	293	Sep 1	312	9	331	18	350
Mar 6	256	14	275	27	294	3	313	11	332	21	351
20	257	16	276	29	295	5	314	13	333	24	352
Apr 8	258	18	277	31	296	7	315	15	334	27	353
18	259	21	278	Aug 2	297	9	316	17	335	30	354
24	260	24	279	4	298	11	317	19	336	Dec 4	355
30	261	26	280	6	299	13	318	21	337	8	356
May 5	262	29	281	8	300	15	319	23	338	12	357
9	263	Jul 2	282	10	301	17	320	25	339	16	358
12	264	5	283	12	302	19	321	27	340	20	359
15	265	7	284	14	303	21	322	29	341	24	360
18	266	9	285	16	304	23	323	31	342	28	47361
21	267	11	286	18	305	25	324	Nov 2	343		
24	268	13	287	20	306	27	325	4	344		
27	47269	15	47288	22	47307	29	47326	6	47345		

Dombás

Declination. D = 4° W + Tabular Values expressed in Tenth of Minutes.

JANUARY 1952

HOURLY MEAN VALUES.

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
D 5	972	761	801	821	836	845	860	850	853	870	885	865	865	860	798	836	848	754	786	761	811	831	841	836	
	853	848	826	826	831	821	816	823	836	850	865	873	878	870	860	873	865	860	791	855	841	826	826	821	
	838	833	845	836	838	836	838	841	843	860	883	883	900	898	875	868	860	860	860	863	823	836	793	761	
	773	875	826	828	836	838	836	836	838	848	860	875	885	885	860	890	885	895	860	806	776	612	729	836	
	850	853	813	910	885	915	925	863	848	923	915	920	923	773	923	910	883	699	811	786	788	808	786	736	
6	811	843	823	885	868	970	942	900	860	860	860	875	865	870	893	888	736	716	811	761	778	766	818	798	
7	850	823	860	831	848	865	865	855	843	838	843	875	885	910	818	860	746	716	801	711	699	773	801	843	
8	868	863	860	915	848	843	850	860	860	865	860	850	868	860	855	836	754	816	826	816	841	841	838	848	
9	841	845	858	860	860	885	860	850	855	848	865	885	885	893	885	890	885	932	910	764	783	836	808	793	
10	816	836	831	826	923	850	818	860	863	838	860	885	890	890	883	903	860	649	878	836	818	619	644	793	
11	798	781	786	786	791	831	828	836	836	855	860	883	910	903	860	918	895	619	786	811	836	826	773	741	
12	637	783	721	836	833	836	860	865	863	890	853	865	910	836	868	831	694	721	741	781	741	736	828	809	
D 14	734	791	818	828	850	845	838	860	836	845	841	880	860	910	788	860	823	786	778	768	711	637	786	761	
15	786	724	811	855	841	838	855	798	803	826	848	860	885	875	786	855	811	716	701	803	736	798	761	773	
16	793	870	828	845	828	860	836	811	873	828	838	863	870	903	749	870	853	786	761	818	813	833	816	813	
17	811	793	836	821	821	821	845	828	828	823	831	860	873	863	860	860	858	828	764	793	786	826	811	831	
18	823	813	833	836	821	828	836	836	836	848	860	875	875	860	868	865	870	860	850	860	850	848	847		
19	838	848	850	843	836	836	836	841	848	860	873	893	888	888	885	888	888	860	811	823	798	798	831	849	
20	841	843	836	848	821	823	833	836	836	843	865	875	888	888	875	865	880	873	823	793	843	821	778	798	
D 21	823	811	786	811	821	833	836	836	836	843	875	900	898	900	910	910	895	880	870	870	823	811	798	851	
22	813	798	813	801	801	803	811	831	850	868	888	913	913	910	895	910	895	880	890	848	786	786	850	850	
23	831	853	858	860	850	850	850	850	850	858	860	898	920	920	935	885	920	860	836	776	694	764	848	848	
24	831	828	836	860	858	850	850	843	863	868	880	890	870	875	863	860	855	850	850	850	850	850	850	849	
25	836	833	836	836	836	836	838	838	850	850	853	893	900	913	910	880	860	860	828	836	813	836	850	849	
M	821	825	830	840	841	848	847	844	844	846	852	866	879	886	887	886	888	877	864	825	813	791	815	799	799
MQ	835	836	833	839	831	834	837	836	839	846	865	879	887	886	881	886	883	861	840	839	830	817	825	851	
MD	810	816	831	860	853	863	867	854	847	865	865	869	898	897	874	856	896	880	803	781	812	722	758	796	763

FEBRUARY

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
D 5	786	813	838	811	836	838	860	910	935	960	942	947	880	878	932	885	768	791	816	726	699	803	831	848
	845	845	885	875	843	843	850	865	860	870	870	888	900	893	888	868	870	853	836	923	923	903	826	861
	848	870	845	843	848	843	836	836	838	850	868	878	893	895	885	887	870	860	850	853	855	843	850	857
	850	855	850	850	858	853	843	843	836	838	855	868	890	903	888	878	873	873	870	865	863	860	860	863
	860	855	860	865	841	836	850	836	823	845	888	900	985	947	960	985	985	885	885	736	662	637	736	413
6	803	793	848	801	811	860	870	811	873	860	858	836	833	860	836	836	885	885	776	761	786	786	744	823
7	786	823	821	811	751	811	831	893	890	913	898	863	853	850	900	900	905	900	836	781	687	724	793	855
8	787	845	818	816	836	813	836	833	831	838	860	885	885	885	893	898	876	876	871	761	749	811	828	821
9	811	828	791	806	801	811	821	833	836	853	850	880	880	880	880	880	880	880	871	754	754	662	669	152
10	811	828	791	806	801	811	821	833	836	853	850	880	880	880	880	880	880	880	871	754	754	662	669	213
11	562	773	580	749	826	811	811	836	853	858	863	845	873	885	878	870	811	806	806	798	721	761	751	786
12	716	786	773	806	865	910	826	836	828	845	870	885	885	910	895	836	746	858	870	699	699	786	848	761
13	791	811	823	808	838	850	831	836	836	836	875	880	905	910	935	773	873	885	863	831	754	662	811	832
14	798	860	855	836	826	836	858	853	843	848	848	895	908	910	910	910	910	910	911	791	791	791	821	821
15	823	843	845	858	821	821	838	850	860	860	880	880	885	885	890	890	873	863	843	850	845	847	847	847
D 16	853	873	818	751	749	855	935	910	860	848	927	927	947	947	895	860	885	823	838	821	687	764	764	754
17	773	873	818	788	786	798	806	811	811	828	860	905	875	903	885	890	890	863	863	860	828	823	836	840
18	838	845	850	821	841	838	843	836	853	868	905	905	903	903	898	888	875	860	863	863	860	863	858	
19	761	786	719	848	855	860	843	843	858	873	873	898	910	903	903	903	903	903	873	873	873	873	873	
20	875	860	863	850	850	875	860	860	860	865	875	880	880	880	880	880	880	880	880	880	880	880	880	
D 21	850	858	860	843	848	848	843	843	848	858	875	885	885	885	885	885	885	885	885	885	885	885	885	
22	850	858	860	843	848																			

Dombås

Declination. D = 4° W + Tabular Values expressed in Tents of Minutes.

APRIL 1952

HOURLY MEAN VALUES.

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	726	687	711	682	778	801	791	848	850	836	821	831	878	923	860	935	900	811	791	813	860	826	831	818	
2	773	781	587	570	711	711	766	768	826	793	826	875	903	942	925	900	910	888	796	848	818	714	662	821	
3	619	612	607	637	600	823	873	841	818	786	836	880	863	910	935	823	741	836	823	761	843	853	649	637	
4	751	729	786	773	744	791	811	806	841	925	865	873	885	860	868	900	816	791	764	883	773	761	721	768	
5	870	736	798	694	764	783	798	826	947	900	853	860	860	870	836	793	895	699	726	793	793	833	898	811	
6	828	624	687	761	771	798	813	788	806	848	841	885	935	885	910	865	786	843	811	706	736	788	895	898	
7	773	724	761	766	786	806	811	888	848	821	836	845	870	890	880	860	873	811	711	811	841	803	811	816	
8	821	786	773	764	811	860	798	744	781	808	831	893	935	945	853	868	860	836	691	731	587	749	836	843	
9	776	766	667	761	761	771	776	778	791	823	858	918	923	908	885	868	890	736	736	811	826	754	836	812	
10	587	719	662	662	699	754	811	818	818	821	853	880	895	910	885	855	836	818	811	793	793	761	801	811	
11	786	811	813	811	808	796	793	803	821	831	848	878	885	875	875	853	836	831	818	783	818	823	816	816	
12	811	860	826	803	798	796	783	786	793	813	855	885	898	893	880	868	843	836	836	786	751	818	816	829	
13	826	831	796	843	793	796	773	771	773	728	845	873	900	908	893	873	860	843	831	751	786	836	828	828	
14	803	811	805	801	798	793	791	786	786	811	821	845	888	898	905	910	895	836	855	853	836	726	786	808	
15	811	803	836	823	836	823	811	793	803	816	848	875	923	843	910	942	845	860	836	786	818	818	826	831	
16	818	818	843	823	813	888	885	873	841	818	836	855	895	908	888	885	875	868	836	778	806	771	776	798	
17	811	796	811	808	836	818	808	771	771	796	823	853	860	875	865	850	843	823	820	801	826	818	813	822	
18	813	811	811	803	796	796	783	776	773	786	818	860	910	925	903	893	880	868	821	821	826	794	687	669	
19	764	764	736	749	786	776	766	773	786	803	836	873	920	947	947	948	898	860	821	711	662	786	761	801	
20	798	811	786	786	776	798	803	798	811	831	855	885	910	903	885	870	855	841	850	843	838	751	768	691	
21	761	813	711	721	736	751	773	796	843	860	885	935	1034	1096	1022	1158	1059	1022	818	868	848	649	724	729	
22	786	843	798	798	744	751	778	843	890	880	895	873	873	865	858	873	860	860	850	841	836	811	823	637	
23	816	808	823	801	761	759	764	788	811	833	848	850	860	873	860	836	824	816	813	801	826	818	813	814	
24	811	811	806	801	793	786	776	786	771	806	811	836	885	885	870	860	850	836	823	836	674	679	699	811	
25	796	801	798	791	786	786	776	778	803	811	836	875	880	890	885	870	860	843	836	836	826	823	816	824	
26	816	813	811	826	798	788	786	778	778	798	833	870	885	893	890	880	883	873	878	806	826	816	811	829	
27	821	816	793	786	786	781	783	786	788	811	848	878	890	898	890	888	885	875	860	855	836	816	811	833	
28	823	806	788	868	826	818	801	741	761	786	826	860	910	930	927	927	919	947	878	813	826	818	813	841	
29	704	761	801	741	687	801	816	768	890	841	860	910	935	955	972	977	962	920	860	848	773	575	711	624	
30	575	600	364	711	724	711	751	793	776	773	801	845	903	898	885	885	874	850	858	860	724	791	624	699	
M	776	772	753	766	771	791	795	796	813	822	842	873	899	907	896	892	870	841	809	805	796	780	775	790	
MQ	808	820	803	798	789	790	786	785	791	813	845	879	895	894	883	875	866	854	852	828	820	788	808	827	
MD	686	713	614	676	692	759	796	793	831	811	842	889	924	960	948	957	894	891	829	822	762	744	657	741	801

MAY

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	786	500	662	637	706	761	783	768	796	806	853	860	860	918	850	860	848	811	860	736	828	801	736	873
2	736	550	768	801	793	736	761	749	764	761	811	855	875	880	885	865	848	873	885	811	811	724	822	794
3	729	773	719	761	744	811	821	836	811	811	826	855	850	860	860	845	801	873	885	836	836	550	674	766
4	500	587	649	719	726	761	786	811	801	818	855	868	865	875	885	885	863	848	853	796	761	674	612	764
5	587	749	704	731	754	776	786	813	826	828	868	905	880	853	853	860	836	811	786	831	850	761	741	796
6	677	716	766	736	726	766	813	900	910	860	893	885	875	875	858	831	833	826	826	808	808	786	783	809
7	736	741	788	773	798	860	818	878	878	811	826	895	942	970	927	927	919	947	878	813	818	786	768	844
8	785	729	729	682	711	704	724	736	848	811	810	860	915	918	910	935	927	927	878	813	826	816	816	816
9	783	796	771	761	759	761	781	786	801	833	855	895	920	900	926	855	853	877	888	813	821	821	821	816
10	796	788	776	771	771	771	754	771	786	801	826	860	875	875	885	890	870	870	870	870	870	870	870	870
11	811	811	798	786	771	761	749	754	768	803	828	890	910	940	935	935	935	935	885	850	826	836	841	847
12	850	920	811	796	786	786	749	751	776	801	828	850	890	895	885	885	885	885	885	885	885	885	885	885
13	833	833	821	801	786	771	771	771	786	811	850	885	895	920	900	926	855	853	877	888	813	821	824	824
14	910	818	761	761	729	736	749	771	796	823	823	885	910	903	903	903	903	903	903	886	886	886	886	883
15	826	828	811	796	766	761	756	778	778	803	816	855	883	883	883	883	883	883	883	883	883	883	883	882
16	818	818	818	798	786	801	771	7																

Dombås

JULY 1952

Declination. D = 4° W + Tabular Values expressed in Tenths of Minutes.

HOURLY MEAN VALUES

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
O 1	786 776 764 746 724 724	729 746 771 816 806 831	831 831 838 841 836 836	850 845 875 923 818 682	801																			
	731 751 771 781 786 761	751 761 771 793 821 816	853 863 870 858 845 843	860 850 833 816 803 801	808																			
	806 811 803 781 771 786	798 786 781 786 803 816	816 821 813 828 875 845	845 836 798 826 826 801	814																			
	793 783 786 786 796 786	751 744 771 791 793 848	848 890 908 908 875 875	860 860 850 801 798 771	820																			
	773 711 736 768 786 821	853 811 798 826 826 855	836 711 875 893 947 878	828 791 751 736 704 744	802																			
O 6	749 761 744 704 687 711	754 764 788 811 803 836	821 845 848 838 836 833	826 823 816 793 793 806	791																			
	761 783 786 771 768 783	786 783 764 773 801 826	858 870 860 853 855 821	831 843 836 816 808 791	810																			
	786 788 793 771 746 749	759 761 761 771 796 836	873 898 910 885 875 853	853 841 836 833 841 811	818																			
	798 761 778 796 766 736	773 818 816 803 848 860	923 910 880 878 811 860	855 855 761 836 803 798	822																			
	786 773 798 798 793 823	759 761 751 773 811 836	833 865 860 860 826 860	848 855 828 828 828 773	814																			
O 11	711 798 724 761 793 783	788 761 744 761 786 811	833 848 843 848 850 826	836 836 833 823 811 808	801																			
	806 816 803 739 734 734	739 749 761 776 803 811	826 845 850 845 850 855	860 843 838 811 761 786	802																			
	786 778 771 764 773 761	761 766 778 811 836 863	888 915 910 880 883 885	860 878 860 826 826 828	830																			
	811 863 860 818 768 736	736 736 786 786 811 843	858 860 853 860 811 836	846 836 836 826 801 821	817																			
	811 736 749 736 766 801	781 751 791 816 836 843	870 870 845 845 845 855	858 836 836 833 786 781	812																			
O 16	751 778 788 768 764 751	761 744 751 764 798 816	850 841 860 850 843 841	826 828 816 833 811 803	802																			
	798 793 786 788 811 808	811 798 811 803 833 836	853 863 863 860 868 868	860 860 836 826 801 796	828																			
	791 783 786 811 811 786	764 751 766 788 826 853	870 910 915 903 860 853	845 843 818 810 795 768	821																			
	786 786 786 776 771 766	776 786 796 811 836 856	865 873 875 875 860 848	801 836 836 836 801 818	818																			
	793 811 751 721 694 704	729 736 761 811 848 900	960 967 1047 910 935 910	947 930 900 836 833 831	839																			
O 21	771 726 746 711 843 726	778 736 786 798 786 801	863 843 878 816 855 860	798 853 860 751 811 773	799																			
	793 724 731 724 744 749	736 744 754 766 803 833	870 873 863 848 836 836	838 786 803 736 751 836	792																			
	791 773 783 773 756 736	724 719 744 776 803 836	863 880 870 865 853 845	845 828 826 788 761 776	800																			
	806 796 754 761 764 754	754 744 759 759 823 875	895 898 893 880 863 863	833 843 826 796 811 795	813																			
	786 776 771 764 749 741	731 736 764 803 836 876	893 875 865 875 836 836	841 811 793 778 776 771	798																			
O 26	791 778 721 798 736 736	711 749 786 806 821 846	885 888 885 853 841 850	836 841 833 816 811 808	810																			
	803 823 801 773 764 761	761 768 786 798 836 860	883 875 873 860 860 850	850 858 836 773 724 736	813																			
	761 761 711 731 746 746	746 746 761 778 828 883	850 860 860 860 850 836	816 836 823 806 796 796	796																			
	786 783 783 776 766 759	751 761 778 796 811 836	860 868 860 845 838 826	836 836 816 793 798 783	806																			
	786 764 761 759 749 749	754 754 761 778 798 836	860 860 855 860 860 855	836 833 821 808 798 786	803																			
O 31	773 778 796 786 771 756	746 746 786 853 865 883	910 908 883 860 860 843	843 823 749 793 811 811	818																			
M	783 778 772 766 764 759	759 759 774 795 816 842	864 869 874 862 856 848	845 841 825 811 798 785	810																			
MQ	770 769 762 765 764 756	756 762 773 791 813 834	858 865 864 857 848 839	834 838 826 812 806 793	806																			
MD	777 754 751 740 755 742	777 773 790 810 822 850	881 855 906 867 877 868	851 850 818 790 788 765	811																			

AUGUST

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
O 1	816 811 773 801 786 786	786 796 811 821 841 860	875 873 860 860 865 860	843 796 761 781 803 786	819																			
	754 786 744 749 751 741	736 744 768 791 811 850	883 895 885 878 873 868	816 818 853 833 841 803	811																			
	764 773 786 813 893 885	860 811 816 831 873 885	893 885 935 925 863 855	848 811 761 786 749 781	837																			
	786 836 826 751 736 746	798 811 803 793 796 811	841 860 870 870 860 848	826 751 786 761 761 860	808																			
	786 687 711 734 751 751	771 773 783 786 811 826	860 875 873 865 826 821	836 843 841 826 801 786	802																			
O 6	855 845 687 771 791 811	801 821 836 821 836 860	885 893 853 811 816 821	786 818 826 821 811 821	821																			
	786 711 761 761 746 754	773 778 786 803 828 860	883 880 873 841 823 813	778 796 821 811 811 833	805																			
	798 778 768 761 766 776	776 761 776 776 803 836	821 833 853 850 821 818	811 811 761 776 801 808	798																			
	801 796 786 786 761 754	749 756 759 781 801 845	875 883 870 860 850 821	771 771 793 796 761 798	798																			
	719 761 652 714 749 744	764 776 776 811 850 903	920 868 927 960 910 818	751 791 823 826 786 761	807																			
O 11	749 796 860 736 746 739	736 736 756 786 811 841	848 863 868 836 823 831	836 855 841 836 736 736	800																			
	672 726 746 744 746 761	759 773 776 826 850 885	903 898 893 860 786 821	821 781 828 771 786 776	799																			
	808 801 783 771 761 771	761 744 761 793 836 868	885 885 860 843 811 803	806 811 801 788 796 801	806																			
	803 796 771 746 761 786	771 751 761 783 818 845	850 836 826 821 811 803	803 786 803 811 801 803	798																			
	808 845 808 771 749 749	746 751 764 796 836 865	878 873 863 868 831 811	821 826 786 761 811 808	808																			
O 16	796 761 776 736 736 711	736 746 761 793 811 833	841 858 858 836 811 811	803 803 803 803 791 791	791																			
	726 726 746 744 746 761	724 726 749 808 868 920	900 900 900 893 885 836	828 637 644 726 781 806	800																			
	726 783 754 746 788 811	741 751 759 776 823 870	885 885 860 843 811 803	806 811 801 788 796 801	798																			
	736 773 845 821 796 761	754 746 759 773 818 845	850 836 826 821 811 803	803 786 803 811 801 803	798																			
	808 845 808 771 749 749	746 751 764 796 836 865	878 873 863 868 831 811	821 826 786 761 811 808	808																			
O 21	761 751 751 749 736 736	741 746 761 796 855 888	888 888 878 860 836 828	836 836 833 803 818 803	806																			
	796 796 786 771 761 761	759 773 776 826 850 885	903 898 893 860 786 821	821 781 828 771 786 776	799																			
	808 801 783 771 761 771	761 744 761 793 836 868	885 885 860 843 811 803	806 811 801 788 796 801	806																			
	803 796 771 746 761 786	754 746 759 773 818 845	850 836 826 821 811 803	803 786 803 811 801 803	798																			
	798 826 786 811 826 826	858 813 814 811 836 850	860 860 836 833 841 828	786 811 823 826 786 773	814																			
O 26	803 806 808 786 751 729	721 736 749 786 836 875	900 890 870 845 836 836	836 836 833 803 818 803	806																			
	776 803 813 759 751 739	761 834 828 848 863 895	893 875 863 860 823 831	811 818 823 826 816 826	820																			
	796 818 783 761 759 776	766 761 761 776 811 836	841 838 826 816 811 811	811 818 818 811 801 803	799																			
	793 786 791 776 766 749	749 749 764 776 803 836	860 860 870 890 863 850	841 839 736 567 637 575	780																			
	669 684 550 736 528 696	699 701 746 791 821 845	858 860 870 863 853 818	811 826 771 736 793 798	763																			
O 31	786 786 786 778 761 761	773 796 798 811 813 841	860 863 863 860 836 821	806 776 786 736 736 705	790																			
M	774 780 767 763 756 761	760 760 773 796 829 861	878 876 869 856 836 825	814 805 798 766 777 777	803																			
MQ	798 793 785 761 754 750	748 746 756 786 820 850	864 861 848 830 816 817	808 804 809 798 797 795	800																			
MD	723 751 722 762 748 783	757 752 769 806 847 881	893 890 887 870 851 831	832 778 765 756 759 782	800																			

SEPTEMBER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
O 1	624 726 811 773 761 699	726 793 821 813 823 836																						

Dombås

Declination. D = 4° W + Tabular Values expressed in Tenths of Minutes.

OCTOBER 1952

HOURLY MEAN VALUES

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	699	786	736	744	786	798	773	761	768	783	803	811	821	833	836	813	786	796	754	714	734	764	816	811	
2	744	736	751	783	773	798	801	786	796	806	836	843	836	833	826	816	808	600	662	701	763	791	781		
3	801	786	756	746	766	841	811	766	754	761	786	838	865	855	883	843	860	786	654	600	719	495	297	752	
4	600	562	662	731	786	898	965	855	795	793	786	806	826	833	843	778	766	816	587	699	741	674	811	736	
5	719	721	724	736	786	985	950	853	811	826	828	801	821	823	816	724	505	721	724	674	721	744	773	778	
6	687	687	619	711	786	818	793	826	818	771	783	821	845	836	771	783	724	711	791	786	756	793	778	786	
7	778	781	786	786	778	786	791	801	776	776	808	821	801	826	803	811	803	763	786	736	691	719	768	783	
8	791	761	843	793	736	771	776	764	756	768	796	845	875	836	848	885	893	853	798	746	781	761	771	773	801
9	786	736	771	773	761	771	768	761	786	805	848	860	865	836	818	811	803	803	821	674	662	761	848	787	
10	751	749	756	751	759	771	761	764	773	788	811	826	845	843	835	831	823	811	611	624	518	687	761	767	
11	786	786	850	786	786	771	771	771	768	773	811	836	875	860	838	821	811	778	550	766	759	786	796	888	
12	721	736	711	786	860	791	761	766	768	806	821	841	860	863	845	826	816	811	764	721	749	761	786	791	
13	776	764	761	766	768	773	766	768	773	793	823	841	836	831	818	828	811	766	786	793	786	783	793	793	
14	791	783	761	778	771	818	868	786	778	791	818	826	833	831	811	811	813	811	786	786	778	801	780	789	
15	793	786	778	781	786	783	776	771	773	788	811	818	818	811	808	811	793	706	771	786	786	788	789		
16	783	796	783	773	768	791	783	768	761	831	833	883	845	841	823	818	823	811	801	788	786	751	731	798	
17	776	771	826	746	793	798	761	783	803	828	836	836	833	818	811	808	822	736	766	687	704	721	736	776	
18	764	776	796	848	826	783	786	796	798	828	836	845	860	843	836	811	808	749	736	654	754	786	795	795	
19	811	788	791	793	788	783	781	786	786	811	850	865	863	865	863	873	826	798	788	786	771	766	764	793	
20	768	803	796	776	786	783	786	786	803	826	845	865	863	865	863	873	826	798	796	791	751	751	786	808	
21	786	783	785	786	786	786	778	771	783	806	873	927	920	927	927	927	927	927	910	910	908	910	910	910	
22	766	776	776	776	776	783	778	771	781	811	836	833	833	828	811	808	803	801	798	793	786	778	776	776	
23	773	766	776	783	781	786	786	776	768	805	811	836	841	838	843	826	821	811	803	793	786	786	786	798	
24	775	773	773	773	773	778	776	771	771	786	806	811	811	811	808	808	808	808	803	771	771	771	773	774	
25	766	783	786	786	786	778	786	786	786	801	826	823	836	841	841	850	850	850	850	850	751	751	751	786	
M	752	757	759	761	783	796	795	784	781	816	832	847	845	838	827	796	792	768	749	719	742	753	749	785	
MQ	779	783	780	780	783	783	778	774	774	789	814	834	840	837	829	831	826	812	786	795	791	779	771	776	797
MD	663	696	680	699	801	842	858	815	801	799	814	821	836	850	831	812	685	775	715	689	665	700	744	721	763

NOVEMBER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	796	786	744	778	781	786	786	771	771	796	801	826	813	836	751	744	796	768	716	619	711	687	662	719	760
2	701	719	768	786	791	798	801	786	783	776	791	811	811	811	811	768	798	776	774	739	761	768	776	776	
3	798	793	818	776	783	778	786	786	786	798	811	826	836	860	860	851	851	811	786	776	764	798	796	796	
4	786	761	761	781	778	778	786	778	778	783	776	811	811	811	811	811	811	811	811	811	811	811	811	811	
5	786	793	788	776	771	773	773	773	771	776	788	808	811	811	811	811	811	811	811	811	811	811	811	811	
6	788	801	793	766	828	759	756	788	783	786	811	885	895	870	826	836	826	816	811	736	736	736	736	736	
7	823	786	726	734	754	764	754	764	776	793	811	813	823	816	838	823	823	811	729	736	731	761	793	783	
8	736	776	773	773	771	786	786	786	786	778	801	821	821	821	821	821	821	811	766	766	766	766	774	774	
9	734	741	788	711	736	761	766	771	771	786	801	811	811	811	811	811	811	803	773	771	759	759	759	759	
10	776	776	776	778	783	778	773	773	776	786	798	811	811	811	811	811	811	811	773	776	776	776	776	785	
11	776	783	776	781	776	776	776	776	776	781	791	816	826	826	826	826	826	826	826	826	826	826	826	826	
12	776	783	776	776	776	776	776	776	776	781	801	808	808	808	808	808	808	808	808	808	808	808	808		
13	773	793	793	811	798	798	801	798	798	801	803	813	823	823	823	823	823	823	823	823	823	823	823	823	
14	741	761	773	771	771	776	786	786	786	798	811	821	821	821	821	821	821	821	821	821	821	821	821	821	
15	786	786	783	793	793	786	786	786	786	791	811	811	811	811	811	811	811	811	811	811	811	811	811	811	
16	786	786	786	786	786	786	786	786	786	786	811	826	826	826	826	826	826	826	826	826	826	826	826	826	
17	776	786	786	778	776	771	781	786	786	791	808	808	808	808	808	808	808	808	791	791	791	791	791	791	
18	711	744	751	754	761	788	786	786	786	798	808	811	811	811	811	811	811	811	811	811	811	811	811	811	
19	736	742	764	766	798	778	791	786	786	798	801	806	808	811	811	811	811	811	811	811	811	811	811	811	
20	786	786	786	786	786	786	786	786	786	798	801	806	808	811	811	811	811	811	811	811	811	811	811	811	
21	786	786	788	793	793	791	796	80																	

Dombås

Horizontal Intensity. $H = 13000 \gamma + \text{Tabular Values.}$

JANUARY 1952

HOURLY MEAN VALUES.

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	835	848	862	864	863	867	869	852	858	855	848	843	663	875	870	868	867	870	878	881	866	865	866	857	
2	852	856	864	865	865	868	865	869	865	864	866	868	673	876	875	875	871	871	874	867	866	864	874	878	
3	870	867	868	873	870	867	871	872	870	868	871	870	872	871	872	875	875	885	885	879	865	870	875	872	
D	835	842	868	869	870	875	875	866	865	865	855	871	867	865	855	867	865	866	877	878	880	902	875	868	
5	848	862	845	775	845	815	810	850	830	810	835	855	855	871	870	868	860	845	855	848	861	865	830	867	
6	860	805	806	850	859	830	860	858	862	850	850	859	859	865	868	867	915	910	880	860	865	875	860	858	
7	855	848	855	865	873	865	870	875	870	865	862	867	867	867	855	865	868	870	875	848	857	865	864	865	
8	855	858	849	855	865	877	871	875	875	861	857	855	857	865	869	865	863	859	860	864	865	866	865	863	
9	866	868	869	875	881	885	885	885	875	863	864	865	875	875	878	878	881	888	913	876	875	865	875	877	
10	863	866	868	863	820	860	871	878	848	875	865	871	870	868	871	872	905	870	880	867	867	835	855	825	
11	795	813	862	868	865	867	866	866	872	865	859	864	865	869	875	888	881	955	880	861	871	861	861	835	
12	877	869	855	795	841	875	865	845	857	869	856	865	872	869	880	860	902	905	888	865	880	855	838	800	
D	840	825	850	862	862	865	879	872	865	845	862	839	865	893	975	875	900	887	880	878	840	825	795	795	861
14	826	822	822	815	841	875	868	865	868	868	858	865	867	883	870	875	900	902	895	879	855	830	851	857	861
15	830	850	849	835	837	867	872	865	875	862	865	885	864	888	920	900	945	950	875	883	883	855	856	865	873
16	866	875	856	856	860	865	870	863	860	860	855	850	865	857	871	864	865	865	866	875	880	869	870	871	
17	860	862	863	862	868	872	872	870	872	868	865	863	862	863	869	868	865	870	866	888	870	863	867	865	
D	863	862	864	863	869	874	876	875	874	871	865	871	870	870	870	875	875	876	877	878	875	875	875	871	
19	870	869	870	873	872	875	875	875	875	875	875	872	875	875	875	875	875	875	877	885	871	872	868	866	
20	868	867	867	866	875	875	875	875	875	870	869	865	862	861	870	870	875	874	873	879	875	871	879	881	
21	865	868	876	871	875	872	877	876	872	875	876	875	877	881	884	875	875	878	876	880	873	865	868	873	
22	874	874	870	868	875	879	880	881	879	880	878	878	877	876	886	878	878	880	882	877	891	882	865	885	
23	875	871	870	872	875	877	884	883	877	865	864	871	875	874	879	868	875	910	890	875	856	847	755	825	
24	835	862	870	867	870	869	867	864	865	865	866	866	870	866	865	867	857	855	865	872	871	868	878	855	
25	862	850	859	875	876	880	882	875	865	865	865	859	860	863	860	867	877	870	864	865	885	875	872	875	
26	876	875	876	878	881	884	883	880	879	873	873	870	869	884	888	895	887	887	886	885	887	890	881	888	
D	885	885	884	885	879	906	910	905	892	888	881	895	865	878	985	1205	995	980	870	860	845	845	855	858	
28	835	845	851	840	835	840	878	875	861	848	855	855	855	870	855	875	872	882	872	869	870	885	888	865	
D	829	867	865	867	872	872	875	870	863	855	840	842	865	869	888	901	1000	145	1015	895	785	830	865	840	
30	850	830	795	818	815	835	855	865	860	865	865	865	860	868	870	868	865	868	865	865	868	875	869	856	
31	865	865	863	870	875	877	880	880	879	875	875	871	874	888	874	872	885	875	875	877	875	875	870	875	
M	856	855	858	857	862	868	872	871	868	864	863	864	867	873	880	885	888	894	881	875	867	865	860	859	
MQ	868	868	871	870	874	876	877	876	874	873	870	870	870	876	877	880	877	878	879	881	875	877	877	873	
MD	854	852	854	841	860	867	868	872	864	853	855	859	863	879	918	945	931	952	903	872	837	839	839	843	

FEBRUARY

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN		
1	875	875	871	875	875	881	877	865	838	850	860	865	880	879	907	864	878	878	864	853	818	860	859	864		
2	863	850	824	838	867	869	872	871	859	859	850	851	861	870	868									858		
3																								876		
4	871	873	877	878	877	878	882	881	877	870	868	867	864	866	874	880	879	878	878	878	875	872	876	877		
5	878	877	877	878	879	886	888	886	880	877	876	868	868	875	880	885	887	888	888	888	888	888	888	882		
D	887	884	884	887	888	884	883	894	893	891	878	888	864	874	888	915	1068	1128	878	923	863	708	848	838	893	
6	838	798	758	763	828	853	858	848	858	864	848	861	863	868	881	873	890	893	901	858	868	848	838	783	847	
7	868	793	833	846	828	848	873	858	808	858	856	870	878	878	883	863	888	873	888	908	868	858	851	818	859	
8	808	850	860	823	809	871	872	868	868	856	848	854	863	877	884	908	883	881	878	918	858	855	798	873	861	
9	875	845	859	860	871	872	870	865	861	862	855	871	867	873	876	885	868	890	908	898	778	783	498	478	833	
10																										
11	608	703	798	823	858	870	876	864	860	854	860	838	861	861	873	877	878	888	883	873	885	870	831	821	842	
12	813	862	853	844	825	836	863	860	869	867	859	845	858	903	890	898	873	876	918	863	833	823	828	862	862	
13	823	853	868	862	856	868	876	875	868	867	858	862	868	852	898	903	868	868	868	868	878	918	861	838	866	
14	848	852	858	865	868	865	870	870	868	848	858	858	867	873	860	881	878	881	883	883	881	878	860	872	869	
15	866	862	860	865	875	878	866	877	878	861	861	864	862	868	868	872	874	878	878	878	878	874	883	884	871	
D	816	876	878	879	873	863	842	868	776	778	778	838	908	978	888	858	878	878	868	848	818	828	828	808	851	
17	801	758	833	873	867	868	868	870	868	860	863	868	851	860	868	872	878	880	878	875	868	868	878	872	860	
18	844	866	860	868	878	884	884	882	878	872	868	852	844	854	868	868	880	878	882	879	862	858	878	857	869	
19	693	853	823	841	874	882	873	878	868	860	858	858	842	851	873	878	878	878	913	911	813	723	848	788	848	
20	828	840	848	858	868	870	891	884	873	870	868	871	868	869	877	878	881	877	877	873	875	874	874	876	870	
D	821	876	878	873	873	881	885	886	885	886	883	878	877	878	868	877	880	874	875	875	874	880	881	878	885	879
Q	879	878	878	875	876	878	879	885	885	884	878	876	878	875	877	874	878	878	875	878	878	873	881	878	878	
23	878	872	872	874	881	881	884	884	881	881	881	881	878	878	880	883	885	886	887	888	884	896	906	888	882	
D	398	488	448	528	718	838	888	883	866	855	821	890	1008	938	898	1008	968	1031	1028	853	843	838	748	688	811	
25	748	823	828	848	868	865	868	868	868	863	868	861	894	868	868	868	868	870	878	868	868	873	873	872	861	
D	864	872	874	882	878	888	878	858	860	848	854	865	866	860	878	878	877	896	963	951	888	872	878	838	818	876
D	568	848	838	818	843	853	858	818	860	851	853	859	849	865	878	870	888	908	868	883	883	894	813	828	868	859
28	818	798	803	793	808	846	870	873	838	838	858	863	872	888	901	941	948	908	923	863	874	875	880	880	865	
29	872	868	873	870	880	878	873	868	868	860	858	865	851	867	889	886	897	870	867	868	876	876	876	898	868	
M	820	833	836	842	857	869	875	868	863	860	859	864	872	878	880	887	894	897	890	882	865	853	842	835	863	
MQ	876	877	876	876	879	882	884	884	882	879	875	872	872	873	875	879	880	878	877	878	880	879	880	881	878	
MD	779	778	776	791	828	853	874	846	841	847	842	867	905	909	885	906	942	956	909	887	861	809	821	804	855	

MARCH

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	840	856	854	860	875	890	880	882	880	860	850	855	855	868	877	887	870	877	876	875	880	881	883	884	
2	881	880	879	876	876	886	890	887	880	871	865	864	866	876	881	881	880	883	864	888	886	884	886	884	
3	883	883	882	882	887	890	891	895	894	887	881	880	896	900	860	857	902	912	995	960	855	760	555	580	
4	740	800	650	680	670	790	825	825	835	845	810	910	915	865	886	975	988	895	897	883	848	836	730	575	
5	775	550	615	770	795	780	827	854	845	807	827	885	920	918	001	001	200	190	980	885	870	680	500	-30	
D	6	40	90	440	470	700	620	735	855	857	856	847	850	878	886	910	903	896	918	965	938	947	920	860	827
D	7	845	818	834	800	835	880	880	875	870	867	830	875	870	930	1030	920	903	983	903	895	883	850	770	650
8	767	823	837	843	800	840	848	840	841	860	840	880	932	910	880	900	935	900	920	844	836	740	855	750	851
9	660	702	745	840	865	870	875	850	834	835	870	880	880	917	920	952	922	920	882	903	875	840	415	730	
10	820	885	845	862	860	865	853	863	845	850	851	869	845	896	930	905	970	932	890	890	765	750	710	690	
11	500	700	765	863	870	863	857	854	860	860	862	870	897	875	925	920	908	930	935	875	880	875	875	841	
12	847	859	878	833	879	880	876	870	869	858	857	870	893	875	943	910	885	890	903	860	860	865	866	853	
13	864	862	865	874	876	876	870	860	858	856	850	850	870	880	861	855	880	880	880	876	884	870	886	875	
Q	14	874	872	870	870	878	870	876	870	863	860	850	849	856	860	866	867	876	879	880	880	880	882	890	880
15	870	878	870	867	869	876	874	870	864	860	860	854	857	862	873	896	903	911	900	920	884	805	850	887	
16	891	863	876	880	860	886	880	867	840	850	850	856	842	860	870	886	871	890	890	884	865	847	866	855	
17	853	870	553	870	870	880	870	879	860	840	844	840	880	886	925	877	890	900	880	875	880	880	880	843	
18	880	878	871	860	845	883	870	871	852	850	853	853	860	848	866	890	860	877	880	880	880	880	880	871	
Q	19	880	877	881	881	883	885	880	873	864	856	855	850	856	860	888	880	875	889	880	889	881	882	877	880
20	881	884	884	886	885	886	884	874	870	860	857	855	850	856	866	876	883	889	893	893	889	890	890	879	
21	890	891	898	896	910	911	880	860	846	836	846	860	890	906	896	932	890	890	890	880	888	888	875	730	
22	825	776	755	824	843	850	851	859	854	858	856	864	873	890	885	883	889	895	895	895	875	889	800	600	
23	250	560	755	832	850	860	844	815	850	847	849	860	869	853	862	860	892	920	945	895	907	911	900	896	
24	880	890	889	842	810	890	879	874	834	844	839	832	852	870	917	945	910	940	903	880	878	853	820	878	
25	876	880	880	876	881	875	875	867	844	833	831	860	890	863	870	880	890	907	889	886	900	903	880	875	
26	856	810	860	880	881	881	883	875	866	856	850	848	860	876	870	880	890	881	886	890	880	880	886	883	
27	880	871	877	878	853	870	879	865	847	850	849	848	860	884	860	872	894	867	880	887	883	890	873	881	
Q	28	880	882	880	880	874	882	881	877	869	864	859	860	867	872	880	882	889	889	890	891	895	891	890	880
29	890	890	887	889	888	889	890	886	872	857	842	849	830	850	867	875	882	893	895	890	896	896	890	890	
30	847	839	837	874	870	880	887	882	878	869	861	859	862	880	910	901	905	920	907	923	920	700	520	670	
Q	31	335	370	520	725	770	870	880	865	810	840	840	855	890	995	900	1015	990	970	925	897	840	870	725	740
M	773	791	814	838	850	863	867	866	856	853	849	861	873	880	897	913	916	907	901	890	871	845	784	789	
MQ	879	879	879	879	879	882	882	876	867	862	856	855	860	868	878	879	882	886	887	888	886	886	887	885	
MD	547	528	612	689	754	788	829	855	843	843	831	875	895	899	945	1003	993	949	915	897	840	795	611	598	

Dombås

Horizontal Intensity, H = 13000 γ + Tabular Values.

APRIL 1952

HOURLY MEAN VALUES.

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	820	760	665	745	800	856	855	800	800	832	845	871	895	910	940	985	957	900	895	874	870	874	874	872	
2	824	792	670	685	785	860	863	852	830	800	793	845	870	914	894	880	930	1080	930	895	860	825	725	445	
3	770	705	625	675	730	805	797	833	845	835	875	905	930	680	935	980	995	960	900	880	860	765	690	585	
4	770	670	665	770	800	845	850	835	715	805	850	870	923	915	870	900	925	924	890	745	755	780	590	800	
5	785	735	745	785	850	890	855	810	780	840	880	870	830	885	935	905	910	960	913	870	825	870	750	660	
6	665	625	795	805	850	867	850	837	820	812	835	850	873	690	902	882	905	890	895	930	865	750	683	615	
7	795	850	850	850	870	857	790	783	845	846	850	850	863	862	900	890	907	915	933	886	888	860	875	859	
8	800	835	875	870	820	820	850	850	840	834	834	846	850	876	920	896	887	910	900	855	844	820	833	856	
9	680	820	822	830	875	878	869	846	826	833	843	874	855	865	882	925	940	915	880	881	910	835	864	859	
10	730	550	650	783	825	830	843	868	866	860	850	854	860	872	880	887	885	886	902	885	893	873	870	876	
11	865	867	860	860	879	881	875	850	838	831	846	855	863	876	866	875	879	889	890	890	886	883	880	870	
12	874	845	860	874	888	887	875	860	852	840	833	836	845	857	870	877	886	891	894	900	894	890	890	894	
13	890	877	840	890	820	885	887	880	870	860	842	836	850	872	886	890	898	914	900	890	892	890	872	872	
14	893	886	884	884	886	888	886	880	873	862	845	844	856	864	880	910	900	892	900	896	897	894	888	882	
15	880	880	869	880	876	880	884	884	880	866	855	854	866	900	903	898	890	890	886	886	888	890	880	881	
16	881	884	875	881	875	868	850	872	865	865	855	870	868	864	870	900	895	895	905	906	897	880	885	878	
17	885	880	857	780	780	850	870	876	861	842	850	840	850	866	871	882	890	882	886	883	886	884	884	864	
18	884	882	882	884	887	888	886	876	870	862	854	854	860	870	870	886	910	923	932	900	873	840	820	871	
19	750	810	860	850	870	875	878	869	860	857	851	850	880	900	920	920	900	905	906	868	869	875	880	869	
20	873	876	876	870	860	856	860	850	848	837	841	850	863	873	880	888	897	900	903	900	895	895	880	874	
21	865	890	890	883	886	880	863	860	860	860	869	869	913	0351	0350	1240	1190	970	900	625	480	340	700	898	
22	830	805	830	830	840	835	755	770	800	815	820	875	895	885	876	876	900	895	895	886	886	886	886	853	
23	877	872	840	853	877	880	874	857	850	854	854	854	860	870	870	886	910	923	932	900	873	840	820	871	
24	880	880	880	880	880	880	879	870	860	850	842	850	863	873	887	880	887	890	892	890	886	882	881	880	
25	880	880	882	890	889	884	880	873	862	852	850	850	863	873	870	876	880	897	890	890	892	890	890	876	
26	890	891	891	890	890	890	885	876	860	849	843	847	856	870	880	884	890	924	914	904	904	900	900	884	
27	885	889	890	890	886	886	883	883	876	865	856	856	860	870	880	891	897	900	906	901	912	906	895	885	
28	900	880	890	890	890	890	890	890	890	890	890	890	890	890	890	890	890	890	890	890	890	890	890	884	
29	893	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	
30	893	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	892	
M	823	811	816	833	846	862	857	849	844	843	847	855	868	884	896	906	917	931	929	907	883	856	845	803	804
MQ	880	876	880	883	883	881	877	869	857	847	844	847	851	866	878	887	889	898	901	901	898	896	894	893	878
MD	765	741	728	791	801	836	842	834	840	837	851	871	889	914	992	1012	1053	1033	924	860	741	701	560	597	834

MAY

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	730	630	650	790	820	850	840	820	824	822	850	925	950	905	962	910	917	955	925	920	820	830	870	600
2	615	660	560	670	840	864	858	850	820	833	875	885	950	912	938	960	925	910	915	910	885	820	560	690
3	670	690	755	810	820	750	838	820	853	852	870	870	872	882	920	970	980	970	960	880	880	880	880	787
4	550	790	810	800	785	855	868	858	843	860	872	880	890	900	927	970	980	990	930	920	830	850	868	839
5	655	630	850	894	876	850	840	840	845	830	850	860	915	900	935	882	901	926	900	895	879	879	877	847
6	847	816	866	875	852	810	800	768	777	814	845	864	856	855	857	884	900	906	902	900	899	860	860	843
7	870	840	851	845	852	800	826	796	770	777	833	841	863	880	1200	2100	2100	1050	835	715	680	730	660	860
8	885	830	625	800	877	873	857	827	810	850	860	860	845	855	880	910	880	900	920	914	890	890	889	880
9	879	879	880	875	875	874	870	857	857	857	850	854	864	864	870	880	893	897	897	900	904	894	877	877
10	898	893	899	893	887	887	880	876	873	873	880	880	880	887	887	890	890	894	895	894	892	890	890	883
11	890	890	891	890	887	876	876	864	861	861	860	860	883	918	900	880	922	925	963	923	911	906	900	894
12	900	862	890	897	900	891	890	890	878	870	866	861	861	865	865	865	865	865	865	903	906	896	896	885
13	894	894	893	896	892	891	890	884	884	885	885	886	890	890	895	895	897	900	900	900	904	890	890	889
14	864	870	890	897	897	888	880	880	886	867	860	865	880	880	887	887	887	897	900	914	917	905	904	888
15	893	892	890	893	889	889	882	876	864	860	860	860	864	864	875	875	880	880	890	903	900	897	896	882
16	890	890	890	889	88																			

Dombås

JULY 1952

Horizontal Intensity. $H = 13000 \gamma + \text{Tabular Values.}$

HOURLY MEAN VALUES.

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN		
1	879	874	877	875	875	871	871	867	856	851	857	858	857	861	874	884	893	897	905	905	925	868	883	923	879	
2	903	900	896	898	893	891	891	876	866	853	855	869	881	876	886	888	896	901	903	903	903	900	899	896	889	
3	893	893	897	900	893	883	883	879	876	863	853	863	880	923	933	956	941	948	936	918	903	893	883	888	899	
4	890	887	885	883	872	863	878	874	858	851	853	873	883	888	908	900	908	906	913	913	915	905	899	890	887	
5	893	896	903	896	873	806	857	870	853	853	853	853	973	1581	0731	0331	113	938	843	853	683	778	823	830	897	
D	6	867	870	878	864	832	850	867	792	848	852	832	835	847	882	890	884	889	892	892	902	902	902	897	886	869
7	886	868	872	872	870	868	869	864	859	858	862	862	871	876	886	912	922	928	922	902	692	884	882	882	882	
8	882	882	881	882	885	876	864	862	859	849	847	852	872	922	915	919	902	902	989	692	892	898	902	888	885	
D	9	888	882	862	878	892	887	852	827	841	822	839	862	862	895	918	932	932	930	920	925	910	906	888	882	891
10	878	885	879	871	873	863	865	867	861	861	839	853	880	861	912	913	976	1001	971	921	891	885	876	891	891	
11	841	836	871	881	841	848	863	865	865	858	851	851	856	881	868	881	888	917	923	902	897	893	891	890	874	
12	885	881	875	881	885	887	881	873	871	861	851	857	870	870	882	901	906	908	913	914	914	904	901	901	886	
13	901	901	901	901	891	887	881	876	871	861	851	858	881	911	928	901	911	911	923	911	905	901	895	893	894	
14	890	878	870	893	903	890	880	870	852	857	854	880	870	880	867	910	900	900	922	910	898	890	890	893	885	
15	870	880	883	870	860	882	882	870	853	840	850	864	873	885	875	880	901	920	927	915	902	896	882	859	880	
16	870	880	873	873	880	873	862	867	865	865	857	870	870	872	900	883	900	910	920	920	900	967	890	887	883	
17	886	880	885	877	870	873	877	890	881	867	862	865	870	892	900	894	903	922	927	924	910	903	907	895	890	
18	891	889	889	874	869	880	882	874	866	860	863	869	863	889	909	889	889	899	896	905	898	894	889	889	885	
D	19	889	890	891	889	885	879	869	866	859	864	869	879	867	873	884	895	900	899	909	909	909	899	889	885	
20	889	879	889	890	899	906	899	895	889	879	912	839	884	884	879	972	9891	0126	949	944	949	939	856	831	814	
D	21	809	829	829	779	804	865	856	811	839	856	879	851	913	939	994	1064	916	909	916	906	899	859	839	854	876
22	878	878	878	853	862	868	868	860	841	838	858	871	868	868	865	878	888	898	188	918	920	888	886	885	888	
23	886	885	878	873	871	876	868	868	858	858	853	857	861	873	880	896	890	900	908	898	902	888	884	881	880	
24	858	868	868	891	898	888	874	867	865	858	865	866	883	888	886	890	898	918	910	915	913	898	968	869	889	
25	886	888	888	883	883	874	868	866	864	854	859	861	673	888	910	938	948	928	923	895	885	872	860	886	886	
26	849	857	825	831	880	878	856	848	858	858	855	873	879	888	888	893	900	901	900	898	898	898	891	890	886	
27	878	859	878	888	885	880	878	875	868	864	862	858	578	870	890	893	908	908	910	920	909	903	898	874	885	
D	28	891	883	888	888	882	881	877	866	865	865	862	866	878	888	894	892	894	898	905	895	889	888	884	884	882
29	888	888	884	884	884	882	878	868	860	856	858	862	872	878	878	888	891	893	901	904	898	891	888	888	882	
30	884	885	888	885	882	878	878	872	865	858	850	854	860	868	878	890	894	901	908	904	902	898	898	901	883	
31	900	898	894	900	903	898	878	873	858	858	862	823	848	878	878	920	945	933	919	915	900	888	895	888	890	
M	880	880	880	877	877	875	873	865	861	857	858	860	874	891	903	911	919	916	913	913	897	889	887	883	885	
MQ	891	890	889	889	885	882	879	870	863	859	859	863	872	873	881	889	894	898	902	905	903	899	895	892	884	
MD	869	871	872	861	860	863	866	839	854	852	869	848	896	951	969	980	975	924	903	907	867	860	856	853	886	

AUGUST

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN		
D 3	887	884	883	851	853	879	878	866	863	869	867	868	866	876	889	893	905	913	919	910	898	892	897	889	883	
	883	863	891	893	894	891	883	873	870	860	858	863	873	886	899	903	928	933	927	909	903	901	903	899	891	
	892	889	901	896	842	858	869	849	845	862	862	864	887	932	982	910	912	957	922	116	896	907	882	877	879	895
	872	859	852	872	887	876	855	849	867	869	862	872	887	887	892	916	882	890	910	934	904	882	866	830	878	
	867	858	889	882	876	876	882	882	877	876	869	879	879	889	902	914	927	932	919	908	906	902	902	902	891	
6	888	806	816	871	831	851	863	848	833	841	845	846	868	886	871	871	896	894	913	911	896	891	891	891	867	
7	836	861	871	891	891	887	883	871	851	853	851	861	868	887	891	883	894	902	912	908	897	895	887	861	879	
8	868	881	881	887	887	871	874	878	858	847	845	856	855	871	871	887	891	901	901	911	901	894	891	887	879	
9	884	882	880	877	887	887	880	867	858	850	850	862	875	877	875	880	890	902	925	905	894	890	870	880	880	
10	820	810	858	870	887	887	880	874	865	844	850	846	864	933	940	957	930	914	920	895	886	866	855	855	879	
11	876	879	844	889	899	897	886	871	864	849	849	847	859	881	877	879	889	899	909	915	909	899	902	879	881	
D 12	819	724	869	884	883	875	882	872	854	839	829	834	875	879	910	910	910	910	910	906	899	889	889	877	871	870
13	879	880	880	879	875	865	864	866	862	853	856	864	862	870	882	886	889	909	902	904	894	888	880	875	878	
D 14	872	872	875	878	871	867	878	870	858	848	851	858	866	873	878	878	880	893	898	891	888	888	884	883	875	
15	884	868	874	884	885	882	878	867	858	852	854	859	873	886	896	891	890	892	898	902	926	902	896	893	883	
Q 16	878	843	878	876	882	885	875	865	860	855	855	860	864	878	887	893	898	898	894	888	888	887	887	883	879	
D 17	880	868	894	898	902	900	899	898	885	880	883	868	848	891	884	898	913	908	910	926	918	878	873	865	891	
Q 18	830	825	875	858	830	859	878	868	858	860	861	875	875	865	881	911	930	963	902	893	888	888	915	868	877	
19	861	852	798	858	859	858	870	871	848	845	864	866	864	865	878	920	920	914	899	898	891	888	885	879	874	
20	868	852	841	862	864	813	832	858	850	840	848	874	891	884	887	888	893	898	908	910	898	978	898	876	875	
21	878	873	880	887	886	888	878	865	858	862	868	870	873	888	901	903	898	895	895	898	897	894	894	893	884	
22	888	884	688	888	884	887	884	878	866	851	839	859	866	881	893	902	908	895	893	898	898	894	901	874	883	
23	855	854	865	892	893	888	878	866	848	841	839	848	864	865	882	893	903	899	891	898	899	898	893	891	876	
D 24	890	873	892	893	892	892	888	877	864	847	848	850	862	877	887	897	897	898	904	910	907	899	897	894	886	
25	892	890	887	890	888	887	883	872	859	853	844	843	855	866	883	886	897	897	898	898	897	897	888	888	881	
Q 26	891	887	887	887	887	882	872	860	847	840	847	840	863	877	887	887	897	897	907	907	903	892	891	891	880	
27	887	887	681	884	883	887	878	852	840	842	835	854	864	866	877	897	898	907	907	894	889	890	889	890	878	
Q 28	883	877	778	881	877	882	877	870	859	849	852	859	866	877	880	887	890	899	895	894	889	887	887	887	879	
29	887	887	880	884	887	887	888	887	877	857	848	852	867	867	887	897	897	898	904	910	907	899	897	894	886	
D 30	812	697	672	722	747	844	870	887	887	877	867	866	867	874	887	883	883	884	897	897	887	877	877	877	850	
31	877	877	872	858	858	875	877	872	867	864	859	859	866	870	887	887	883	884	897	897	887	847	807	692	862	
M	871	859	866	875	873	876	876	869	860	854	853	858	865	881	892	901	906	906	906	904	898	890	882	870	879	
MQ	883	882	881	882	881	881	877	867	857	849	850	852	863	874	883	886	892	897	898	896	893	890	887	886	879	
MD	847	806	842	852	841	867	880	875	866	864	860	861	870	888	909	925	919	905	903	898	885	884	872	877	877	

SEPTEMBER

Dombás

OCTOBER 1952

Horizontal Intensity. H = 13000 γ + Tabular Values.

HOURLY MEAN VALUES.

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	858	858	874	873	854	868	878	868	858	848	863	858	867	878	878	866	872	878	888	892	881	876	874	868	
2	878	878	875	865	888	882	878	878	868	854	857	858	864	865	852	866	880	888	889	908	862	864	874	878	
3	873	865	871	879	868	868	871	872	865	858	854	865	865	856	893	880	915	939	943	920	895	793	608	508	
D 4	838	838	878	881	863	751	733	788	831	858	864	860	861	863	893	938	901	905	948	878	795	848	788	588	
D 5	763	858	874	874	828	778	748	828	838	848	912	898	915	863	868	918	933	892	858	788	864	863	865	843	
6	773	838	786	791	851	848	831	848	834	838	853	848	858	868	868	898	904	901	888	866	880	879	878	878	
7	875	872	872	873	878	878	877	860	866	858	848	843	848	858	865	882	874	874	872	878	879	894	878	878	
8	878	848	848	878	878	878	882	875	873	862	853	858	861	841	883	882	880	878	884	888	887	886	888	873	
9	851	828	853	878	881	880	878	873	866	858	852	856	866	856	874	878	861	884	886	888	888	873	886	869	
10	878	877	878	879	878	879	882	876	870	860	857	861	862	868	878	888	878	885	882	893	859	880	872	875	
11	868	848	855	883	888	890	881	878	868	855	860	865	863	858	863	874	882	888	872	878	878	878	860	871	
12	831	863	860	831	853	875	868	875	866	858	848	848	862	870	873	883	878	880	888	891	888	878	878	868	
13	888	875	878	878	878	882	878	878	870	865	861	865	868	873	878	875	878	888	883	883	883	881	884	877	
14	873	881	874	866	880	868	870	875	868	858	858	858	866	873	878	883	880	881	881	878	878	878	878	873	
015	878	878	878	878	878	880	881	877	868	865	860	861	867	870	874	881	888	898	874	878	884	885	887	877	
16	882	884	885	882	882	887	890	886	879	872	868	861	875	865	881	884	888	886	887	887	884	874	878	881	
17	884	867	863	896	883	885	880	872	867	854	853	857	868	881	881	880	888	888	888	888	888	888	888	872	
18	868	871	877	858	884	894	891	877	848	844	848	853	863	865	877	870	872	872	885	878	878	871	873	871	
19	877	878	875	877	880	879	878	871	858	830	838	838	866	866	878	878	884	886	888	889	884	887	878	873	
020	878	864	875	878	883	884	888	880	868	858	856	856	865	871	878	873	870	867	884	885	886	883	882	875	
21	880	879	882	883	887	888	887	880	873	868	861	870	864	898	922	998	898	901	1048	1028	928	888	891	889	905
022	878	881	863	881	878	878	878	873	868	860	867	865	865	868	874	874	878	878	881	883	882	881	878	875	
023	879	878	878	878	879	881	881	878	865	858	858	858	869	871	870	856	861	859	868	868	868	868	868	878	
024	888	880	882	886	885	885	885	885	881	874	866	865	868	868	877	878	888	888	888	888	888	888	888	882	
25	888	887	887	888	889	894	894	888	881	878	875	878	878	878	878	878	878	878	878	878	878	878	878	877	
D 26	818	815	859	856	896	878	885	875	866	868	865	868	868	943	1048	1093	1003	993	858	858	852	848	808	808	878
27	831	845	858	878	870	872	877	878	864	851	848	855	866	868	870	871	876	876	875	875	878	878	878	867	
28	871	848	878	883	881	886	886	880	878	868	865	865	868	873	875	880	880	888	888	885	883	880	880	876	
29	881	874	878	878	882	882	886	877	875	866	865	865	867	874	877	879	881	883	883	882	881	881	881	877	
D 30	678	738	808	738	768	878	885	884	888	886	888	888	888	888	888	888	888	888	888	888	888	888	888	882	
D 31	833	821	708	818	881	888	848	814	858	873	868	868	873	873	958	953	968	928	878	865	881	871	828	798	808
M	839	859	853	867	873	872	869	869	865	859	860	862	868	874	885	898	895	893	891	882	871	863	849	844	869
MQ	880	878	879	880	881	882	883	878	870	863	859	863	867	867	871	876	878	878	888	885	885	886	885	878	
MD	686	814	772	833	847	835	820	838	854	863	875	872	879	901	929	975	965	931	888	849	824	809	775	763	850

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	734	819	851	862	887	879	879	874	875	869	859	859	849	874	872	879	875	875	875	866	866	869	892	839	729
2	839	879	869	869	871	875	879	875	866	862	864	859	865	882	865	865	872	867	874	874	874	874	874	872	872
3	872	871	869	878	879	889	889	879	879	866	854	852	866	872	872	866	874	877	879	879	879	879	878	874	874
D 4	874	871	869	879	882	882	886	877	875	866	866	865	867	874	877	879	881	881	883	883	882	881	881	881	877
5	879	881	884	887	889	887	889	889	878	866	859	867	873	873	878	878	886	887	887	887	883	882	881	880	880
6	885	885	886	875	889	915	916	895	885	877	869	875	869	867	868	868	868	868	868	868	868	868	868	868	884
7	876	879	879	880	882	887	897	889	881	875	872	874	874	879	882	882	888	884	884	881	889	886	886	886	880
8	873	871	874	879	875	889	892	889	882	877	869	869	879	880	883	883	885	886	885	889	889	889	889	889	880
9	873	883	888	881	885	889	889	887	880	875	877	876	873	879	879	879	878	878	878	878	878	878	878	878	883
0 10	880	879	881	883	884	885	887	888	885	888	885	885	887	887	888	888	888	888	888	888	888	888	888	888	883
0 11	882	879	881	887	889	888	889	887	886	885	887	886	879	874	881	881	887	884	879	877	877	877	877	877	876
0 12	879	880	879	879	885	887	888	885	886	887	885	887	887	889	889	889	889	889	889	889	889	889	889	889	883
0 13	879	881	877	880	869	877	879	865	857	881	879	877	879	879	875	875	875	875	875	875	875	875	875	875	875
0 14	874	875	875	877	875	882	881	877	868	866	866	865	874	878	878	878									

Dombås

JANUARY 1952

Vertical Intensity, Z = 47000 γ + Tabular Values.

HOURLY MEAN VALUES.

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN		
1	386	473	491	501	501	511	508	515	522	517	512	521	521	516	518	531	517	512	525	491	505	501	497	486		
2	489	486	499	501	501	503	506	505	503	501	504	506	507	506	504	508	511	521	505	511	506	491	490	504		
3	489	491	500	500	498	501	503	502	502	500	498	499	501	504	505	501	503	502	501	504	531	521	473	471	500	
4	481	431	447	478	491	495	500	501	501	501	501	500	501	511	528	533	541	547	526	524	474	471	490	499	500	
5	475	471	458	341	361	414	446	501	521	554	578	560	561	606	551	539	576	594	547	534	508	463	356	456	500	
6	483	426	401	431	426	426	461	491	509	516	521	516	516	518	520	531	636	558	571	548	518	505	501	484	501	
7	484	501	498	501	504	502	512	506	501	501	502	502	518	547	576	571	566	541	558	561	491	418	471	488	514	
8	474	476	490	462	481	491	498	501	504	508	513	523	528	517	516	517	524	541	528	517	508	505	504	504	505	
9	501	501	501	500	498	489	493	493	497	500	499	501	503	504	504	503	512	526	569	591	551	533	521	534	514	
10	534	518	507	498	461	451	471	470	483	495	501	504	512	518	531	533	606	608	571	541	519	484	431	411	507	
11	432	430	465	465	462	490	499	501	496	500	500	499	513	526	532	522	584	622	522	536	522	482	472	462	502	
12	445	460	463	412	432	462	482	492	502	506	513	527	517	525	546	562	597	537	549	519	487	452	422	337	489	
D13	448	427	447	472	485	492	502	497	502	507	507	537	552	542	562	592	542	562	547	382	367	387	382	497	497	
D14	397	417	441	423	420	476	492	511	508	506	518	522	517	530	562	542	597	572	512	520	457	342	442	452	487	
15	452	474	487	484	452	467	487	502	522	522	517	514	522	532	642	627	622	577	537	582	527	502	492	507	523	
16	517	512	500	501	502	507	504	509	508	512	514	518	518	519	522	525	528	522	522	512	508	507	517	496		
17	492	502	495	489	498	499	502	502	502	502	505	504	506	511	512	512	511	510	517	506	502	514	509	511	504	
D18	507	507	509	508	506	505	504	502	502	505	504	504	502	506	507	507	505	507	509	506	511	506	503	502	504	
D19	502	502	502	501	501	501	501	498	498	498	497	497	501	504	509	503	508	512	522	512	504	512	508	502	504	
D20	502	500	501	498	497	497	497	501	501	498	497	498	499	502	502	503	505	512	521	511	512	512	502	498	503	
Q21	492	499	492	489	494	497	497	498	499	501	494	494	496	500	500	502	507	512	514	507	507	507	502	502	502	
22	492	487	492	492	492	495	492	489	485	487	487	492	496	500	507	516	528	552	557	528	522	534	508	516	516	
23	527	506	502	496	498	498	495	495	495	495	495	499	507	507	515	533	556	552	627	602	553	577	385	495	495	
24	432	457	472	478	482	492	494	494	498	497	498	499	499	501	504	521	545	556	529	512	519	503	494	455	495	
25	448	458	462	491	494	496	494	499	499	502	502	503	512	522	525	519	519	532	524	524	495	492	492	493	500	
Q26	493	495	496	496	496	495	496	496	493	493	493	497	498	499	502	499	495	496	497	501	501	498	493	493	496	
D27	490	493	488	479	479	473	471	473	479	485	488	489	493	496	500	503	503	503	503	503	503	503	503	503	501	
28	438	473	489	483	500	483	484	484	484	485	485	485	484	485	486	503	503	503	503	503	503	503	503	503	501	
D29	486	493	499	502	499	498	494	484	483	493	503	512	519	517	521	517	513	512	513	533	513	508	510	473	495	
30	487	478	453	454	454	451	473	492	494	494	495	497	497	501	504	521	525	529	524	519	517	509	503	493	509	
31	500	500	501	501	502	500	498	495	493	494	494	496	496	498	504	525	538	533	593	518	514	517	509	503	493	
M	476	479	482	478	480	486	492	498	501	504	506	506	509	514	519	538	532	549	549	533	527	505	488	471	473	504
MQ	499	501	500	499	499	499	499	500	499	498	497	498	499	502	504	504	508	513	510	510	509	503	499	502	502	
MD	459	460	467	443	453	471	481	494	501	511	521	525	540	543	607	561	609	598	539	521	451	422	403	433	501	

FEBRUARY

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	477	471	474	487	493	495	493	487	493	493	505	543	553	510	543	588	583	543	528	436	473	413	483	497	503
2	503	495	460	468	492	493	503	503	507	512	513	506	503	512	519	522	522	522	522	499	493	502	502	502	502
D3	495	489	496	498	493	495	495	497	496	494	495	495	497	496	495	495	495	495	505	503	510	500	496	493	502
D4	497	496	494	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	492	492	492	492	493
D5	497	496	494	494	494	493	493	493	493	493	493	493	493	493	493	493	493	493	493	493	492	492	492	492	493
6	488	489	488	484	479	474	471	473	476	474	481	482	503	508	503	509	636	513	520	446	406	438	458	423	484
7	464	467	454	459	464	466	480	480	488	510	524	554	533	539	549	524	524	524	520	524	449	454	484	489	489
D8	368	404	484	484	484	477	467	474	495	494	504	511	510	510	530	596	524	524	517	524	419	431	454	417	480
9	414	454	464	464	427	457	486	494	498	504	511	518	518	518	514	549	554	554	544	449	454	454	485	485	484
10	434	476	484	484	484	484	495	495	495	495	495	495	495	495	495	495	495	495	495	495	495	495	495	495	496
D11	204	244	339	294	469	488	494	497	499	500	514	534	534	514	509	514	525	529	530	454	464	428	454	452	452
12	358	449	459	484	437	424	461	475	485	488	495	510	528	561	539	576	541	517	524	554	449	354	454	454	479
13	364	446	479	480	485	484	491	491	494	494	496	504	517	524	544										

Dombås

APRIL 1952

Vertical Intensity, Z = 47000 γ + Tabular Values.

HOURLY MEAN VALUES.

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
D O D 4 5	399 362 319 377 417 477	502 486 502 510 516 527	509 552 625 602 612 567	549 528 516 512 508 509	499																			
	476 317 297 272 282 412	454 487 502 522 558 512	518 531 569 568 578 597	562 517 257 444 424 247	454																			
	302 227 322 372 347 347	389 452 497 567 567 562	577 542 567 607 567 596	569 525 362 322 295 212	446																			
	416 382 386 419 442 477	487 409 517 517 548 567	587 587 559 586 559 497	317 207 322 322 407 462	462																			
	362 364 318 372 402 464	476 468 468 488 537 538	517 555 572 572 552 560	519 492 425 454 312 252	460																			
6	192 297 405 415 462 485	488 504 518 532 556 510	524 555 546 552 538 510	516 492 409 362 312 202	454																			
7	287 402 460 482 494 492	478 471 478 492 502 547	540 518 549 543 522 567	542 520 489 395 444 405	484																			
8	300 403 475 487 433 403	444 473 490 502 519 526	520 540 570 523 533 550	480 423 372 392 403 469	469																			
9	333 388 398 423 468 500	504 507 508 506 493 501	516 519 507 507 533 588	517 503 469 366 350 477	477																			
10	213 178 293 370 403 439	452 495 503 505 510 530	533 526 527 523 518 514	513 505 498 483 453 455	456																			
11	476 493 495 494 499 503	503 503 503 499 503	528 538 517 513 509 508	513 521 506 503 496 498	505																			
12	493 473 460 470 472 476	488 495 498 494 492 492	492 498 499 499 499 503	503 503 518 508 498 499	493																			
13	498 463 411 373 358 431	478 488 493 492 498 503	507 502 505 505 505 503	533 525 509 503 500 492	483																			
14	488 499 503 503 503 503	503 503 499 495 503 493	510 504 504 504 504 503	513 503 488 495 503 507	507																			
15	496 493 493 492 492 484	489 493 495 498 494 497	514 583 540 547 568 558	533 503 493 496 496 511	511																			
16	501 498 489 461 472 459	478 473 488 492 493 493	494 513 532 545 543 530	533 523 487 473 481 490	498																			
17	497 497 483 413 391 433	487 505 504 510 504 503	499 493 498 503 505 508	505 505 503 503 497 499	489																			
18	500 503 501 501 504 503	504 504 499 494 489 484	484 493 501 504 510 534	591 560 449 369 314 274	482																			
19	264 350 419 469 484 480	492 497 504 502 498 499	507 527 588 592 550 529	521 494 484 474 394 404	480																			
20	462 476 484 488 489 484	493 500 499 499 496 494	494 495 499 508 513 518	510 513 508 494 441 431	491																			
D 21	442 441 443 456 466 467	474 474 474 474 464 464	464 499 538 494 544 504	459 534 609 489 346 379	476																			
22	452 469 464 442 441 479	469 494 494 519 524 539	528 518 516 516 524 524	518 512 519 516 505 505	500																			
23	500 492 494 484 493 496	500 500 500 501 515 518	513 513 515 520 524 528	533 507 504 504 504 507	507																			
24	505 505 505 508 506 505	505 506 502 497 495 495	495 497 503 503 518 585	540 529 513 430 360 425	499																			
25	480 498 503 504 505 505	505 505 501 502 504 505	504 502 507 507 517 518	505 505 502 499 500 500	503																			
Q 26	499 498 500 501 500 501	503 504 501 495 491 490	491 494 495 495 499 511	533 555 505 499 490 491	502																			
27	495 495 503 503 505 502	503 499 495 491 491 489	491 491 492 495 495 500	500 499 505 500 485 478	496																			
28	455 442 485 400 355 390	435 471 483 495 495 506	527 555 595 609 635 625	590 575 511 485 466 367	497																			
D 29	338 342 459 471 409 421	425 460 477 484 486 505	545 535 515 565 622 495	490 295 280 402 400 215	443																			
30	251, 196 306 436 466 466	486 486 509 523 571 586	556 529 533 526 566 520	516 391 441 316 231 236	443																			
M	412 415 435 445 449 466	480 487 497 503 510 513	516 524 533 535 543 539	527 498 465 453 425 404	482																			
MQ	486 488 490 494 494 494	498 501 499 496 494 494	494 496 498 501 505 510	511 515 508 500 483 480	497																			
MD	362 305 365 401 394 423	446 472 492 514 531 526	532 527 544 552 577 543	519 452 390 395 340 258	453																			

MAY

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
D D D 4 5	216 231 191 346 438 463	475 518 529 534 542 571	591 541 571 551 550 501	496 471 371 371 407 251	447																			
	274 271 201 321 404 461	486 501 514 521 556 531	586 556 574 561 544 534	461 386 471 431 291 311	448																			
	276 306 326 425 457 411	441 471 483 501 509 511	507 513 531 556 543 543	496 369 311 191 111 424	424																			
	256 253 316 406 421 468	487 497 511 511 516 517	538 553 531 541 507 507	516 481 421 386 316 231	447																			
	252 222 372 458 482 482	494 492 502 518 524 522	558 533 503 502 520 531	522 502 482 462 347 354	464																			
6	347 362 422 463 462 452	456 462 475 492 496 498	502 504 519 527 539 519	512 509 507 487 432 392	472																			
D 7	382 417 444 472 407 412	447 445 482 562 562 543	572 618 569 607 442 492	442 474 562 608 472 457	500																			
8	504 487 377 402 478 502	505 507 497 497 498 500	505 507 512 522 544 533	527 522 489 470 459 502	495																			
9	500 492 498 502 501 501	498 493 493 494 493 494	495 500 503 503 506 509	513 509 503 503 503 493	500																			
10	463 459 486 493 499 498	495 493 488 486 484 484	492 498 501 499 498 498	490 499 499 500 500 500	492																			
11	501 503 503 503 503 503	503 504 501 495 494 473	483 494 510 523 518 543	578 560 529 507 503 497	508																			
12	490 436 456 484 484 486	494 490 480 479 484 486	489 497 504 507 514 524	524 517 513 492 494 498	493																			
13	499 499 502 502 501 496	490 484 481 480 484 485	499 534 526 509 500 496	494 495 506 480 483 469	496																			
14	394 357 414 464 484 485	494 495 494 494 490 491	494 494 516 646 616 558	558 539 501 476 475 470	480																			
15	495 495 499 503 504 502	500 495 490 485 485 485	495 505 514 519 525 522	523 510 505 502 500 499	502																			
16	499 498 499 503 502 500	500 501 495 490 485 485	490 495 501 504 508 513	508 508 503 496 492 485	498																			
17	487 495 497 500 501 501	498 495 485 480 480 475	480 485 500 505 505 505	500 495 497 486 471 462	491																			
18	406 376 353 436 476 477	480 484 482 486 499 511	496 499 516 646 616 558	558 539 501 476 475 470	491																			
19	406 461 472 466 391 426	467 477 491 515 512 495	496 509 521 521 556 546	521 521 486 484 469 481	489																			
20	441 466 467 469 474 490	492 496 495 489 486 491	506 516 531 543 533 529	516 511 501 476 456 482	494																			
D 21	487 486 487 495 497 493	495 497 487 489 488 487	507 517 524 520 521 515	515 507 505 505 499 491	501																			
22	493 497 501 501 504 505	500 496 490 493 497 498	496 498 502 504 507 507	503 501 500 500 499 500	500																			
23	501 501 498 482 482 482	497 495 487 482 481 477	480 488 497 508 517 513	513 494 493 493 494 496	496																			
24	458 456 473 482 481 481	488 487 483 484 478 481	480 488 491 498 505 513	515 511 498 498 483 484	493																			
25	479 479 488 498 498 498	493 488 492 494 483 482	483 494 498 505 508 513	502 495 497 496 495 496	470																			
M	415 403 414 456 469 478	487 492 495 500 501 501	512 517 521 526 529 525	511 493 481 469 439 424	482																			
MQ	490 488 497 501 503 501	499 496 491 490 489 489	494 499 504 506 509 510	509 506 503 500 499 495	499																			
MD	337 295 254 386 431 450	474 494 509 531 540 544	563 558 561 565 543 519	482 434 433 429 359 304	458																			

JUNE

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1 2 3 4 5	490 505 506 504 491 484	498 499 498 498 499 494	495 501 508 511 508 499	503 508 501 505 514 514	500 502 505 507 507 507	500																		
	487 487 487 487 482 484	491 492 491 493 494 494	497 507 509 507 505 507	514 524 505 507 507 507	507 507 507 507 507 507	498																		
	502 496 487 472 467 471	484 487 487 487 490 494	497 502 502 507 517 521	522 475 497 502 484 482	492 484 482 482 482 482	492																		
	401 429 460 475 493 502	507 504 500 499 497 497	497 497 503 504 504 507	505 505 517 501 497 492	487 487 487 487 487 487	491																		
	490 488 478 478 458 486	493 488 486 484 484 483	500 512 523 546 541 526	516 508 508 508 508 508	492 492 492 492 492 492	498																		
6	461 458 490 498 506 503	502 496 492 489 490 490	491 496 500 500 503 502	500 500 502 502 506 506	500 500 502 506 506 506	494																		
D 7	496 491 496 496 496 499	500 500 496 486 486 489	487 495 500 496 511 508	502 506 511 512 506 492	488 489 489 489 489 490	497																		
8	491 486 487 447 46																							

Dombås

JULY 1952

Vertical Intensity. Z = 47000 γ + Tabular Values.

HOURLY MEAN VALUES.

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	518	517	517	519	518	517	513	511	507	500	497	502	506	507	507	508	508	511	507	508	499	460	460	492	
2	502	512	508	507	508	510	512	514	511	508	508	504	506	513	515	514	512	510	511	509	510	510	510	506	
3	508	508	508	514	513	508	504	508	508	511	513	512	514	522	530	553	584	592	565	554	534	522	510	506	
4	514	512	510	508	508	508	508	508	506	506	508	511	518	524	538	556	544	528	518	517	521	528	514	504	
5	491	479	489	491	486	462	449	483	509	526	519	534	572	714	659	589	606	559	459	504	299	374	451	451	
6	479	499	509	500	494	500	496	504	496	500	511	509	515	513	515	523	515	514	516	514	516	519	506	484	
7	486	491	502	507	507	503	505	508	508	502	501	507	507	511	517	524	547	539	527	517	517	513	512	511	
8	511	507	507	507	505	501	505	507	507	504	507	513	528	556	581	567	537	520	519	514	509	499	467	516	
9	471	488	484	480	474	492	494	492	492	508	517	518	521	518	543	588	593	535	518	519	531	512	508	501	
10	494	498	498	492	484	484	508	508	520	516	517	528	541	532	547	567	575	568	562	555	538	512	473	465	
11	409	395	441	482	466	475	496	499	499	503	509	509	509	519	529	525	519	523	515	514	511	512	510	509	
12	501	474	449	459	459	474	489	499	505	505	506	509	518	519	513	503	509	508	509	515	509	504	498	498	
13	506	507	509	509	510	510	505	500	498	498	500	500	500	504	520	545	540	530	530	510	512	510	506	511	
14	500	480	460	460	470	495	503	499	495	496	498	506	526	544	550	540	575	544	525	523	512	504	490	506	
15	441	471	485	482	476	478	487	496	497	499	501	501	505	507	521	517	513	511	511	517	511	509	495	428	
16	474	496	501	505	505	504	501	511	507	504	504	507	514	515	521	521	528	523	524	521	521	511	511	511	
17	509	509	509	505	495	490	490	489	495	499	499	499	499	503	515	531	539	540	535	522	521	514	505	503	
18	499	502	502	499	479	478	485	489	489	493	499	512	515	520	533	533	515	506	503	506	495	489	502	504	
19	499	501	504	510	510	510	505	501	500	496	489	490	496	507	506	508	510	514	520	509	508	490	497		
20	460	469	484	493	490	487	490	488	482	484	484	494	515	521	542	638	600	571	540	542	520	440	365	340	
21	327	364	395	391	371	461	475	496	495	503	521	537	532	563	565	536	556	546	548	504	493	431	413	385	
22	394	448	478	495	498	506	507	507	511	511	521	511	511	511	511	511	511	517	524	481	471	475	456	494	
23	479	495	500	507	495	502	499	496	495	496	494	494	498	502	515	524	526	526	518	516	509	474	469	500	
24	444	442	472	488	490	502	504	502	502	498	492	503	503	502	502	500	501	502	524	516	515	502	465	472	
25	489	501	505	507	508	507	508	505	499	495	495	503	515	529	540	521	521	520	516	523	501	483	480	443	
26	408	437	406	393	457	484	497	500	496	500	503	503	503	513	520	526	516	523	523	519	513	513	509	502	
27	499	467	491	506	514	514	510	506	501	500	500	499	500	504	510	517	514	518	517	517	517	519	498	437	
28	484	488	494	500	492	503	504	504	501	497	493	494	502	504	504	504	504	504	505	505	513	509	509	501	
29	510	510	509	511	514	515	516	515	511	505	505	505	501	508	503	503	502	502	500	505	513	514	510	508	
30	506	502	502	505	505	503	508	505	503	503	502	502	502	500	501	502	505	506	515	515	515	510	506	519	
31	506	505	496	489	492	494	493	497	502	497	507	519	526	526	546	560	560	579	562	559	516	503	516	511	
M	478	484	488	490	490	496	499	502	502	502	504	506	513	524	529	539	537	531	522	519	506	497	488	479	
MQ	501	503	503	507	507	508	509	508	506	502	500	498	502	506	507	508	508	510	512	510	511	511	507	505	
MD	446	466	446	454	452	461	480	492	495	497	499	504	531	572	565	595	574	545	516	517	472	455	449	432	501

AUGUST

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
1	505	498	502	488	468	478	488	499	496	503	502	503	506	509	509	509	507	506	513	531	516	506	501	486
2	472	452	464	497	500	500	503	503	504	505	505	507	512	520	527	527	534	534	580	543	527	520	492	457
3	490	500	503	497	457	432	433	451	464	492	501	494	514	567	621	692	622	554	544	551	530	497	497	493
4	478	463	452	484	501	505	495	498	494	494	496	499	498	508	508	523	528	523	533	512	480	478	451	499
5	348	413	460	478	490	494	498	501	504	513	516	513	504	502	504	523	553	563	548	528	514	509	498	499
6	469	304	359	406	421	463	488	497	501	506	510	519	519	529	542	545	531	531	535	522	519	518	514	483
7	389	369	433	459	488	499	499	501	507	519	519	515	510	519	525	531	531	531	535	533	522	516	502	476
8	474	494	503	506	503	500	501	514	514	516	517	519	532	532	548	530	517	511	513	513	506	505	511	511
9	510	511	511	511	508	508	513	513	510	509	510	506	506	514	520	520	520	520	520	520	520	520	520	509
10	424	361	383	425	443	466	481	491	500	503	501	499	497	496	504	504	506	504	506	514	526	522	511	444
11	461	474	431	458	485	495	501	504	501	501	506	511	514	520	522	516	512	514	511	521	523	511	446	496
12	389	337	439	488	502	498	502	508	517	512	519	519	520	533	548	577	577	589	552	537	540	500	499	504
13	498	508	514	516	517	516	513	512	505	507	511	512	512	519	527	532	534	534	529	524	522	521	510	504
14	503	507	513	513	510	506	510	513	506	503	501	503	505	505	505	505	505	505	512	525	513	513	513	504
15	507	495	494	509	507	509	509	507	509</td															

Dombås

OCTOBER 1952

Vertical Intensity. Z = 47000 γ + Tabular Values.

HOURLY MEAN VALUES

GMT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	447	437	487	497	496	507	514	523	524	524	521	517	519	524	527	534	537	527	530	528	516	513	493	481	
2	504	506	501	497	502	507	512	518	517	520	513	521	527	540	548	593	*527	531	542	544	457	489	502	509	
3	506	458	450	458	480	478	490	504	510	511	508	510	523	524	520	593	630	603	618	614	386	298	263	373	
4	413	323	423	486	471	438	488	538	548	524	518	524	524	573	633	608	586	588	423	343	393	243	243	470	
D	399	477	503	506	466	422	453	509	569	602	632	637	642	567	572	604	629	579	504	334	464	484	459	468	
6	397	445	426	450	484	477	496	509	523	549	544	535	543	565	586	599	564	559	509	532	529	509	518	524	
7	524	524	524	524	524	521	520	526	528	529	530	535	539	580	554	555	540	550	500	542	537	490	495	500	
8	507	490	455	483	503	510	511	515	519	520	523	524	526	550	537	552	555	550	629	564	538	526	516	510	
9	486	426	450	496	511	517	521	525	526	521	521	521	531	527	525	529	530	529	529	528	547	521	511	461	
10	486	501	506	511	511	513	517	521	521	519	518	517	520	521	522	526	526	541	532	546	467	488	517	515	
11	518	500	482	502	513	514	518	510	519	519	518	516	525	525	525	527	531	536	552	572	502	526	532	524	
12	372	442	449	422	424	449	499	512	514	512	513	518	515	532	527	532	532	542	536	518	507	520	502	497	
13	473	499	515	517	518	518	522	523	520	518	519	517	517	518	522	529	529	529	523	527	525	523	523	517	
14	505	513	514	513	512	506	496	509	514	516	516	519	519	523	523	533	530	529	529	532	523	523	519	520	
D	514	514	517	517	519	519	520	523	521	516	514	514	518	521	524	523	524	530	520	521	528	527	523	520	
15	518	516	518	517	516	514	516	520	519	514	510	514	514	518	524	521	521	524	523	526	532	524	382	516	
16	518	516	518	517	516	514	516	520	519	514	510	514	514	518	524	521	521	524	523	521	526	532	524	382	
17	518	511	435	439	461	489	509	515	516	519	520	521	525	525	528	531	543	605	575	555	530	505	496	486	
18	495	498	505	492	492	508	505	513	528	532	525	521	525	538	538	539	555	579	600	575	555	510	511	500	
19	496	516	516	518	520	523	524	525	528	540	540	540	540	540	532	527	526	529	529	516	521	521	518	525	
D	513	505	502	510	506	512	515	516	516	516	516	520	525	532	541	553	568	576	550	532	526	521	521	516	
21	519	521	521	521	521	520	521	522	521	519	516	504	512	522	550	551	572	647	612	644	672	617	595	547	
22	537	532	527	524	525	523	523	522	520	520	520	521	526	527	527	527	523	522	522	523	523	522	523	524	
D	523	522	522	521	521	521	521	522	522	522	518	519	523	520	519	522	523	529	528	528	528	528	518	514	
23	516	518	519	518	518	518	519	520	519	518	518	518	522	522	526	522	518	518	520	520	521	521	519	513	
24	519	519	519	519	519	517	516	516	516	511	511	519	518	522	526	522	518	518	518	520	521	521	519	513	
25	519	519	519	519	519	519	516	516	516	511	511	519	518	520	527	529	534	614	579	551	504	479	366	394	
26	393	309	189	377	441	484	499	509	521	522	520	529	575	544	699	689	699	649	579	562	504	484	464	484	514
27	410	440	470	492	506	516	520	520	526	529	530	530	530	530	529	529	533	531	534	534	534	523	497	513	
28	495	490	470	493	503	510	510	515	518	518	519	520	527	530	533	535	550	520	530	524	520	520	516	516	
29	511	509	510	515	517	521	522	524	525	524	526	528	532	535	551	589	594	611	608	561	451	401	401	356	
D	301	298	361	346	356	464	511	516	521	530	527	527	531	531	551	641	706	651	596	461	426	416	261	331	
30	385	442	342	375	462	489	509	539	527	519	526	54	592	672	652	672	632	575	575	537	506	482	409	447	
M	474	475	472	486	494	501	509	517	523	525	524	526	533	541	547	563	565	561	551	529	505	495	476	473	
MQ	521	518	517	518	518	519	520	521	520	518	517	518	523	525	527	528	533	535	528	525	524	523	521	518	
MD	378	370	364	523	439	459	482	512	535	544	546	553	573	592	609	648	655	608	564	463	449	452	369	395	

NOVEMBER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN		
D 1	392	442	467	494	502	507	517	522	522	522	529	537	538	544	602	588	590	567	562	612	485	457	445	327		
2	403	473	493	499	508	518	523	527	529	527	527	533	533	540	575	568	562	573	553	507	473	511	518	523		
3	513	508	497	502	513	513	516	523	523	526	533	535	535	542	563	569	549	543	533	532	533	533	520	528		
4	493	504	513	522	524	525	524	524	524	527	524	524	524	527	530	529	530	528	528	527	527	525	524	523		
5	522	520	518	520	524	524	524	524	525	524	524	524	524	528	540	534	533	537	540	537	530	524	509	503		
6	511	518	521	519	505	498	495	502	511	513	515	517	530	538	532	529	540	542	565	550	535	530	524	506	523	
7	475	470	498	508	505	505	505	514	515	515	514	516	517	521	529	541	539	529	565	549	560	527	420	449	512	
8	486	509	517	519	516	516	515	516	516	521	520	520	523	530	537	535	536	532	540	457	496	426	442	457	508	
9	498	506	476	496	506	513	518	520	518	520	517	520	522	526	526	533	526	523	512	523	530	516	517	519	516	
10	522	521	521	522	522	522	522	523	522	521	521	522	522	523	524	524	528	530	527	524	523	522	519	523		
11	520	521	521	522	522	522	522	521	522	522	519	517	520	521	523	523	527	539	557	550	537	531	527	509	526	
12	509	515	521	523	523	524	523	521	521	518	518	522	523	523	523	523	522	525	524	524	525	523	524	524	523	
13	519	514	518	518	521	521	520	521	523	523	523	522	521	520	519	519	520	522	520	520	519	518	518	518	520	
14	518	516	516	517	517	513	513	510	512	513	514	514	515	515	515	518	518	519	518	518	523	520	498	510	515	
15	519	525	521	519	516	515	514	516	519	519	522	526	531	529	529	532	539	529	529	541	509	513	519	519	523	
16	520	520	520	519	519	519	518	516	516	518	518	515	517	523	545	614	599	559	543	534	529	525	524	525	519	531
17	516	511	513	519	519	520	521	520	523	525	525	520	521	524	524	525	525	533	545	599	559	551	579	533	533	
18	540	533	537	530	529	522	520	518	520	525	521	520	520	523	526	524	522	522	521	586	527	530	530	526	526	
19	527	526	522	520	519	519	519	520	520	520	523	523	525	525	525	526	529	529	520	528	527	524	510	521	525	
20	529	524	520	521	520	517	517	515	513	510	512	514	514	516	516	517	516	515	517	517	517	515	516	510	516	
21	473	468	484	485	490	491	494	506	526	529	531	565	536	538	535	541	553	544	537	526	521	520	506	477	516	
22	431	401	445	476	494	503	507	511	518	516	519	531	541	542	561	585	641	571	566	554	535	523	520	513	521	
23	511	507	505	507	507	501	507	512	512	517	520	520	522	531	527	525	523	526	524	520	518	518	516	516	516	
24	505	512	515	516	517	516	517	515	518	522	518	519	524	532	534	539	548	530	526	522	521	521	520	517	522	
25	505	482	498	500	503	510	512	512	512	516	517	518	521	528	532	536	532	532	528	527	522	516	512	512	516	
26	512	513	513	513	512	512	510	508	511	515	515	517	522	532	538	552	588	612	564	577	428	348	399	365	507	
27	464	516	533	519	514	509	509	518	526	550	557	583	663	593	567	599	633	579	573	543	442	437	459	397	533	
28	371	439	479	481	506	506	512	523	526	525	533	539	559	590	564	570	548	543	523	473	493	495	485	478	511	
29	493	513	522	519	517	517	518	515	518	523	523	533	539	563	564	542	537	539	505	499	514	503	498	499	521	
30	483	489	506	514	514	513	514	520	520	516	515	521	524	524	526	538	530	535	533	526	504	495	494	507	515	
M	493	501	508	511	513	514	515	517	520	521	522	526	531	535	541	543	545	540	537	528	517	506	504	493	520	
MQ	513	515	519	521	522	523	522	522	522	521	522	522	523	524	524	525	528	532	530	526	524	523	519	S23		
MD	442	476	495	498	505	505	508	515	522	528	533	548	564	559	561	570	582	569	552	526	474	452	459	409	515	

DECEMBER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
1	510	516	514	514	511	505	504	507	510	517	'515	514	511	514	524	536	537	621	582	547	519	424	451	467	
2	404	461	495	485	504	509	514	514	514	511	514	519	554	704	714	614	574	550	506	468	484	404	399	518	
3	487	511	514	508	490	494	497	498	508	514	520	519	515	522	534	532	534	529	534	546	523	494	484	454	512
4	446	352	387	465	468	495	508	516	527	525	522	531	553	567	582	555	544	575	559	539	515	488	445	392	503
5	472	458	488	475	489	492	508	515	525	531	531	549	541	529	525	528	526	521	473	515	516	516	508	516	
6	516	518	520	521	518	519	516	518	518	519	521	521	521	523	523	525	549	535	521	520	522	525	515	522	
7	509	513	518	522	515	515	515	511	512	514	515	515	515	519	521	522	522	527	535	507	505	521	521	523	
8	516	508	510	514	515	513	513	513	513	516	514	513	515	516	523	528	523	524	526	525	521	521	519	516	
9	510	519	516	516	515	515	515	515	516	516	512	511	512	513	516	516	516	516	516	519	525	519	516	516	
10	511	513	513	506	506	509	512	512	515	512	513	515	523	524	546	566	601	596	546	524	516	511	513	515	
11	513	517	516	516	512	486	491	508	506	512	516	520	522	533	532	531	532	536	541	536	526	522	511	506	
12	502	497	507	510	512	510	510	511	513	518	517	518	527	560	568	577	567	541	531	524	523	518	509	503	
13	487	474	473	481	481	449	477	504	518	554	580	587	617	598	557	538	533	526	524	526	526	526	526	525	
14	525	521	512	523	521	526	525	525	523	522	523	523	524	527	529	529	526	527	525	525	526	521	520	520	
15	519	478	517	517	508	508	512	513	510	514	517	516	517	517	521	518	519	521	522	523	520	518	518	515	
16	519	518	519	518	517	515	513	512	512	515	516	518	519	526	534	538	561	560	548	545	538	522	511	508	
17	510	508	505	502	504	508	515	518	519	521	524	523	524	524	524	524	524	527	522	524	534	524	525	518	
18	527	528	524	505	491	505	510	510	508	508	511	509	512	518	519	523	524	528	568	533	513	519	520	521	
19	504	498	518	518	518	518	518	516	516	517	518	517	515	518	517	518	518	520	518	518	518	518	516	516	
20	516	518	516	515	514	513	514	513	513	515	515	513	515	519	519	519	519	521	520	519	518	518	519	518	
21	516	515	514	514	513	513	512	512	509	511	512	512	513	516	522	526	525	525	525	525	525	525	517	517	
22	513	512	509	509	509	508	508	507	509	509	510	510	512	516	529	579	586	579	582	559	545	535	529	520	
23	523	522	521	519	519	518	518	518	516	516	516	516	514	515	516	515	516	516	519	524	528	526	522	518	
24	517	516	513	506	501	506	508	510	510	512	518	521	529	567	675	660	592	570	546	545	567	520	520	424	
25	447	434	449	463	450	492	509	516	519	533	545	530	537	574	554	540	540	543	533	534	537	520	506	499	
26	490	490	510	510	513	510	505	510	511	513	516	520	526	527	528	529	550	520	522	524	525	522	515	517	
27	500	509	495	497	503	509	515	516	516	514	516	520	523	521	521	520	520	520	526	553	546	515	425	513	
28	493	545	545	535	527	521	521	518	517	519	523	521	521	537	547	541	596	584	557	561	543	497	446	531	
29	421	481	425	486	509	508	516	520	521	534	533	528	528	534	534	553	661	656	611	581	461	451	421	476	
30	484	491	511	501	504	484	503	517	519	528	541	542	555	561	559	574	626	559	559	556	486	461	471	472	
31	479	489	479	506	506	507	499	500	506	513	519	527	531	528	534	571	545	548	561	501	486	469	461	449	
M	495	498	504	506	506	509	512	514	518	521	522	526	532	542	546	546	548	544	533	519	510	500	493	519	
MQ	515	514	517	516	516	515	515	514	514	514	514	514	514	517	518	519	519	519	520	521	523	520	519	517	
MD	449	452	470	484	497	489	504	514	520	531	537	540	554	563	587	587	596	578	562	542	491	482	453	453	

Appendix

STORMINESS VALUES FOR THE PERIOD 1949-1951 FOR D, H, AND V

Based on recordings made at BRENNØYGARDEN from January 1, 1949 until February 28, 1951, and on recordings made at DOMBÅSHAUGEN for the rest of the year 1951 are in the following presented Tables of monthly means of storminess hourly values and Tables of diurnal sums of positive, negative and absolute storminess (P_S, N_S, and A_S). Due to the short distance between the two sites and the relative character of the storminess values, no distinction has been made between the two stations in the Storminess Tables.

In charge of the magnetic stations was the late Mr. PER EINBU, who made the necessary magnetic measurements and scaled the magnetograms for hourly mean values. Scalings were centered round half-hours GMT. Calculations of the storminess values were undertaken by Mr. K. F. WASSERFALL with the assistance of Mr. HELGE DALSEIDE according to methods outlined in No. 9 of the present series.

ADOPTED SCALE VALUES AND TEMPERATURE COEFFICIENTS

$E_D \delta/\text{mm}$	$E_H \delta/\text{mm}$	$E_V \delta/\text{mm}$	$\tau \delta/\text{°C}$	$\tau' \delta/\text{°C}$	STATION
7.0	5.7	4.7	5.38	5.96	Old
9.59	8.97	7.59	0.06	0.01	New

The results presented below represent the completion of the formal presentation of results from the old magnetic station at BRENNØYGARDEN, that had been in operation for 35 years, 1916 - 1951.

Storminess Mean Values.

Dombås.

Declination. (+ W). Unit Gamma.

1949	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
J A N	-16	-25	-13	-5	-1	10	8	6	3	0	-1	-1	0	0	-1	0	-2	4	0	-10	-3	-17	-14	-13	-3.9
F E B	-17	-16	-11	-11	-8	2	5	8	2	2	3	4	5	4	4	4	4	6	2	-2	-2	-13	-11	-15	-2.2
M A R	-11	-15	-11	-5	3	4	4	6	6	5	6	6	3	6	5	5	6	5	-1	-6	-9	-16	-12	-7	-1.1
A P R	-11	-8	-7	-6	-4	-1	0	2	2	2	0	-1	1	1	2	5	5	3	2	-1	-3	-6	-5	-11	-1.8
M A Y	-8	-1	-6	-3	-2	-2	0	-3	-8	-7	-3	-4	-4	-8	2	7	9	3	5	3	-3	3	3	4	-1.6
J U N	-10	-7	-6	-2	-2	0	1	0	1	1	-3	-3	0	3	0	8	6	8	5	2	3	-3	-3	-0.1	
J U L	1	3	4	3	4	5	5	3	2	0	0	-1	-1	-2	0	0	-2	-3	0	-1	-1	-3	-1	0.6	
A U G	-1	0	-1	0	5	9	3	4	-1	-5	-5	-5	-5	-1	-1	2	1	0	1	2	-1	-3	-6	-4	-0.5
S E P	-9	-9	-3	-2	0	5	4	4	5	1	0	0	0	0	2	4	2	1	-3	-4	-5	8	7	-10	-1.3
O C T	-9	-12	-9	-6	5	3	2	1	-2	-7	-2	1	5	2	3	1	1	4	5	2	-6	-12	-22	-14	-2.8
N O V	-11	-6	-4	-1	1	4	6	4	2	1	3	5	7	7	9	8	4	9	4	-3	-8	-7	-10	-7	0.5
D E C	-6	-7	-6	-2	1	2	3	2	3	4	3	2	2	1	1	4	4	2	4	-2	-8	-5	-4	-5	-0.2

Horizontal Intensity. (+ N). Unit Gamma.

1949	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN		
J A N	-62	-75	-72	-82	-50	-29	-14	-8	-9	-5	-5	-5	0	4	7	11	16	9	1	-7	-25	-27	-26	-37	-20.5	
F E B	-44	-42	-30	-15	-15	-11	-4	-1	-2	-2	-2	2	2	6	5	9	14	14	11	2	0	-6	-19	-33	-6.3	
M A R	-41	-34	-26	-29	-27	-29	-14	-6	-3	-3	-1	11	16	20	21	31	32	21	7	-8	-15	-22	-30	-4.3		
A P R	-35	-27	-24	-24	-20	-8	-5	-3	0	-1	-4	-2	10	15	15	18	26	27	12	5	-1	-6	-8	-27	-2.7	
M A Y	-56	-50	-32	-29	-17	-8	-8	-5	-8	-8	-5	-1	9	33	19	18	27	14	10	6	-9	-18	-29	-52	-8.2	
J U N	-36	-24	-21	-15	-12	-9	-9	-11	-8	-2	3	7	14	27	37	40	41	31	18	5	-5	-22	-34	-26	-0.6	
J U L	-3	-4	-5	-3	-3	-4	-4	-3	-3	-1	0	1	6	14	12	10	11	9	9	3	-1	-3	-2	0	1.5	
A U G	-21	-18	-17	-13	-12	-5	-2	5	0	2	4	6	8	20	30	17	20	16	9	6	0	-5	-9	-9	-9	-1.6
S E P	-11	-25	-16	-12	-6	-4	-4	-6	-7	-2	0	2	8	20	20	13	12	13	8	-1	-7	-6	-9	-9	-1.2	
O C T	-49	-42	-34	-21	-10	-7	-6	-4	-9	-8	7	14	16	32	38	50	39	24	-2	-16	-59	-56	-53	-44	-8.4	
N O V	-38	-24	-13	-6	-2	-2	-1	3	1	3	2	3	5	15	22	19	30	34	28	6	2	-12	-12	-28	1.6	
D E C	-4	-3	-2	-3	-2	-2	-2	-3	-2	0	1	0	0	0	0	0	-1	1	3	0	0	-1	0	-0.9		

Vertical Intensity. (+ Down). Unit Gamma.

1949	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
J A N	-8	-12	-15	-17	-7	-9	-4	0	3	4	4	4	6	9	12	13	11	8	4	9	9	6	-11	-7	0.4
F E B	-32	-28	-23	-24	-22	-11	-11	-6	-3	-1	-1	2	4	5	6	9	9	5	4	4	-4	-21	-29	-6.5	
M A R	-20	-30	-22	-23	-33	-22	-16	-8	-4	1	4	7	9	12	13	18	25	19	14	13	6	-7	-14	-20	-3.2
A P R	-24	-13	-21	-17	-15	-9	-5	0	1	3	5	7	9	13	10	9	12	11	4	0	-2	-7	-10	-21	-2.4
M A Y	-11	-22	-27	-29	-17	-11	-5	-3	0	-2	0	1	7	7	-1	-2	4	2	0	1	-9	-12	-13	-27	-7.0
J U N	-27	-23	-21	-17	-12	-8	-4	-2	1	4	5	7	7	17	14	14	9	10	6	5	4	1	-12	-17	-1.9
J U L	-5	-8	-9	-8	-7	-6	-5	-3	-2	-5	-3	-2	0	3	4	3	3	1	0	-1	-3	-4	-7	-2.7	
A U G	-14	-16	-18	-24	-14	-8	-4	0	2	2	5	7	7	9	14	16	16	13	9	7	3	-4	-10	-17	-1.9
S E P	-28	-35	-31	-23	-19	-8	-5	-2	1	3	5	8	11	12	13	13	4	-6	-9	-18	-25	-5.3			
O C T	-19	-26	-30	-22	-21	-20	-6	-2	2	5	6	11	13	19	24	26	26	21	14	8	10	-9	-11	-9	-0.4
N O V	-29	-32	-22	-17	-13	-12	-8	-4	-1	2	3	5	10	14	21	25	28	18	8	6	0	-7	-10	-18	-1.4
D E C	-4	-5	-8	-7	-7	-4	-3	-3	-2	0	1	1	2	3	3	5	4	3	7	5	3	-1	-1	-1	-0.1

Dombås.

Declination. (+ W). Unit Gamma.

1950	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
J A N	- 7	- 2	- 6	- 5	- 3	- 2	0	- 2	- 1	- 3	- 2	- 1	0	2	3	5	5	5	4	- 3	- 12	- 15	- 13	- 3	- 2.3
F E B	- 10	- 10	- 9	- 4	- 1	- 1	2	- 2	- 1	- 1	- 2	0	0	3	3	1	2	2	0	- 8	- 10	- 15	- 16	- 3.0	
M A R	- 6	- 6	- 6	- 9	- 3	2	2	3	3	3	2	2	0	- 2	0	- 1	0	0	- 3	- 5	- 8	- 7	- 1.7		
A P R	- 8	- 9	- 2	- 4	- 1	7	9	8	4	3	4	3	3	3	1	4	6	4	3	- 4	- 3	- 10	- 15	- 11	- 0.3
M A Y	- 11	- 4	- 1	- 3	0	- 1	2	- 1	0	1	6	6	4	1	0	- 1	- 1	0	1	2	- 1	- 3	- 9	- 12	- 0.9
J U N	- 7	- 7	- 6	0	2	6	3	- 3	- 1	- 1	2	2	1	- 1	0	2	2	1	1	- 1	- 2	- 3	- 5	- 6	- 0.5
J U L	- 14	- 11	- 8	2	0	3	3	1	- 2	- 2	3	7	4	3	2	3	4	4	5	- 2	- 4	- 11	- 9	- 11	- 1.2
A U G	- 10	- 12	- 10	- 2	3	8	3	- 1	- 4	- 1	- 1	0	0	0	6	8	5	4	0	- 9	- 5	- 10	- 14	- 1.6	
S E P	- 5	- 4	- 8	- 2	0	6	8	7	4	1	0	- 1	1	3	4	1	0	- 1	- 6	- 12	- 24	- 12	- 21	- 2.8	
O C T	6	- 2	- 5	- 2	- 1	5	8	10	10	4	1	0	0	0	- 1	- 8	- 13	- 11	- 18	- 16	- 26	- 19	- 15	- 8	- 4.1
N O V	- 4	- 1	0	- 1	3	5	7	5	3	2	3	1	2	6	1	- 4	- 6	- 4	- 9	- 13	- 15	- 16	- 13	- 9	- 2.3
D E C	- 7	- 5	- 5	- 2	2	5	9	10	10	7	6	4	4	1	3	3	- 2	5	- 5	- 14	- 9	- 10	- 7	1	0.0

Horizontal Intensity. (+ N). Unit Gamma.

1950	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
J A N	- 7	- 11	- 7	- 5	- 4	- 2	- 3	- 4	- 4	- 4	- 2	- 3	- 4	1	2	3	6	7	1	- 2	- 9	- 3	- 4	- 2.0	
F E B	- 29	- 28	- 31	- 43	- 16	- 11	- 6	- 3	- 8	- 3	- 2	- 1	2	5	7	9	15	11	4	- 22	- 21	- 51	- 37	- 18	- 11.3
M A R	- 8	- 9	- 12	- 11	- 6	- 6	- 4	- 2	- 4	- 7	- 9	- 2	8	17	20	20	18	9	7	0	- 7	- 10	- 7	- 8	- 0.6
A P R	- 34	- 32	- 28	- 22	- 15	- 11	- 8	- 3	- 3	- 0	4	5	12	23	35	37	39	41	15	2	- 21	- 31	- 36	- 40	- 2.9
M A Y	- 48	- 45	- 37	- 36	- 26	- 18	- 7	- 3	- 2	- 3	1	3	11	14	18	24	26	20	18	8	- 32	- 39	- 39	- 8.5	
J U N	- 30	- 35	- 35	- 27	- 22	- 12	- 4	- 4	- 8	- 3	1	7	8	2	8	14	15	13	4	5	1	- 7	- 19	- 29	- 6.6
J U L	- 44	- 52	- 40	- 26	- 16	- 10	- 7	- 4	- 4	- 6	- 4	- 1	5	9	8	6	5	8	5	- 1	- 21	- 30	- 40	- 10.2	
A U G	- 52	- 61	- 41	- 27	- 29	- 24	- 14	- 19	- 7	- 3	- 2	3	19	26	37	30	24	15	11	1	- 18	- 29	- 44	- 61	- 11.0
S E P	- 55	- 33	- 21	- 10	- 11	- 10	- 8	- 7	- 3	- 2	8	8	12	11	18	26	30	20	19	1	- 15	- 22	- 42	- 54	- 5.8
O C T	- 45	- 28	- 45	- 32	- 10	- 8	- 11	- 7	- 13	- 12	- 7	5	11	19	14	33	21	1	- 30	- 46	- 49	- 43	- 60	- 12.8	
N O V	- 34	- 13	- 8	- 10	- 1	- 2	- 1	- 3	- 6	- 5	- 5	- 1	9	10	25	22	19	10	0	2	- 12	- 7	- 8	- 18	- 1.5
D E C	- 27	- 16	- 10	- 9	- 2	0	0	- 1	1	3	3	2	3	6	5	6	9	- 3	- 14	- 25	- 20	- 21	- 4.5		

Vertical Intensity. (+ Down). Unit Gamma.

1950	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
J A N	- 8	- 8	- 8	- 7	- 6	- 5	- 3	- 2	- 1	1	1	2	4	6	7	11	11	9	10	7	2	- 1	- 5	0.6	
F E B	- 10	- 9	- 8	- 10	- 10	- 6	- 1	2	3	5	5	7	8	9	13	22	21	13	9	2	- 6	- 11	- 3.0		
M A R	- 11	- 13	- 16	- 12	- 10	- 8	- 5	- 2	1	2	3	4	4	2	4	6	8	4	10	7	3	- 2	- 6	- 1.2	
A P R	- 32	- 29	- 30	- 30	- 26	- 20	- 12	- 6	- 1	1	4	7	9	13	16	19	19	12	6	- 6	- 17	- 30	- 31	- 6.0	
M A Y	- 29	- 21	- 22	- 21	- 15	- 7	3	5	7	8	10	10	13	14	17	16	17	15	9	5	- 3	- 14	- 18	- 31	- 1.4
J U N	- 17	- 22	- 27	- 23	- 21	- 15	- 6	- 3	- 2	- 2	1	3	5	3	2	4	8	7	3	3	1	0	- 7	- 13	- 4.9
J U L	- 27	- 31	- 33	- 24	- 11	- 12	- 9	- 1	1	3	3	3	4	5	5	7	9	6	3	0	- 4	- 10	- 15	- 20	- 6.3
A U G	- 11	- 11	- 14	- 6	- 3	3	2	2	7	9	6	4	5	8	8	6	4	10	9	3	0	- 5	- 11	- 16	- 0.3
S E P	- 23	- 19	- 14	- 10	- 8	- 7	- 5	- 2	- 1	3	5	6	7	9	10	11	13	11	12	1	- 9	- 18	- 26	- 3.5	
O C T	- 26	- 23	- 23	- 21	- 13	- 9	- 5	- 2	1	6	8	11	13	15	16	29	22	15	8	- 3	- 15	- 19	- 21	- 24	- 2.3
N O V	- 15	- 11	- 11	- 7	- 6	- 3	- 2	0	2	4	5	9	10	15	16	14	12	9	9	3	- 3	- 7	- 12	- 13	- 0.1
D E C	- 14	- 14	- 12	- 10	- 7	- 4	- 3	- 1	0	1	3	3	2	3	0	- 2	6	- 7	- 20	- 21	- 21	- 22	- 14	- 2.0	

Dombås.

Declination. (+ W). Unit Gamma.

1951	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	
J A N	- 4	- 4	- 6	- 8	- 4	1	- 4	5	4	4	2	1	1	2	1	4	0	- 1	- 2	9	- 18	- 15	- 7	- 2.0	
F E B	0	- 2	- 10	- 14	- 8	1	4	6	7	4	4	5	5	5	8	3	2	- 5	- 6	- 14	- 8	- 6	- 9	- 1.3	
M A R	- 11	- 7	- 13	- 8	- 4	2	5	2	2	0	1	3	3	5	7	4	1	3	- 5	- 6	- 12	- 17	- 18	- 3.2	
A P R	- 19	- 20	- 17	- 13	- 5	5	6	3	2	1	- 1	1	4	7	9	13	13	8	0	- 6	- 11	- 15	- 21	- 23	- 3.4
M A Y	- 22	- 17	- 16	- 9	- 6	- 2	- 1	0	- 1	- 5	- 4	- 3	- 1	1	2	5	6	2	2	- 1	- 6	- 13	- 19	- 5.2	
J U N	- 6	- 5	- 5	- 3	3	3	4	4	3	0	0	2	3	2	1	3	3	1	5	7	- 1	0	- 1	- 2	- 0.8
J U L	- 10	- 12	- 14	- 4	- 3	- 1	0	- 3	- 6	- 5	- 1	2	3	1	- 1	0	- 1	- 2	1	- 6	- 9	- 6	- 3	- 3.1	
A U G	- 7	- 1	- 4	2	6	5	6	2	- 2	3	- 4	5	7	3	- 2	- 3	- 2	- 5	- 2	- 4	- 10	- 9	- 7	- 6	- 0.6
S E P	- 38	- 16	- 26	- 15	- 5	8	8	2	- 2	- 5	- 2	- 6	- 5	- 7	- 5	1	0	4	- 2	- 16	- 11	- 26	- 29	- 8.6	
O C T	- 9	- 9	- 8	- 2	3	0	1	- 1	0	0	3	2	3	4	3	2	- 2	2	7	- 5	- 17	- 22	- 45	- 3.5	
N O V	- 15	- 17	- 7	- 3	1	6	7	5	3	3	2	2	3	2	5	7	- 2	- 5	- 22	- 28	- 23	- 20	- 17	- 4.4	
D E C	- 7	- 7	- 4	- 1	0	7	4	1	2	3	0	1	2	3	5	9	8								

Storminess Diurnal Sums

Dambas

Declination.

Unit Gamma

1949.	J A N			F E B			M A R			A P R			M A Y			J U N			J U L			A U G			S E P			O C T			N O V			D E C					
	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S						
I	85	231	316	56	49	105	142	209	351	37	7	44	39	45	84	77	137	214	78	100	178	7	162	169	83	121	204	119	6	125	677	46	723	78	96	174			
2	258	448	706	8	62	70	205	143	348	27	64	91	67	148	215	14	139	183	216	59	275	157	183	258	105	178	355	134	484	0	99	174	100	210					
3	49	52	101	105	270	375	108	186	294	42	40	82	92	223	314	50	82	238	61	228	230	17	20	170	157	183	190	104	199	106	42	148	162	68	230				
4	72	31	103	47	493	540	170	161	176	49	66	115	297	41	338	292	170	543	835	42	72	74	97	163	260	101	18	119	130	162	292	165	140	305	41	75	119		
5	71	22	103	49	67	107	82	192	192	49	66	115	297	41	338	292	170	543	835	42	72	74	97	163	260	101	18	119	130	162	292	165	140	305	41	75	119		
6	48	185	233	112	227	359	89	0	89	43	40	83	55	151	206	100	237	406	60	62	122	10	115	125	74	19	93	236	45	281	79	91	170	88	79	167			
7	89	294	393	120	404	524	68	11	79	81	202	283	71	54	125	61	81	142	97	42	139	110	54	164	73	43	244	273	517	03	24	87	50	4	54				
8	80	149	229	86	106	114	147	39	186	202	545	747	62	56	118	154	50	204	158	163	324	32	285	317	79	63	142	37	307	344	7	35	42	34	5	39			
9	109	191	300	63	11	74	306	134	440	76	85	161	125	132	257	99	19	116	171	91	262	73	79	152	5	210	149	245	294	14	14	58	234	148	148				
10	31	218	249	84	85	169	26	19	45	194	107	301	84	64	92	35	88	123	53	87	140	89	39	128	11	97	108	51	56	117	38	82	120	19	157	176			
II	75	221	296	131	165	296	147	8	155	220	107	327	72	64	156	78	99	177	75	80	155	19	74	93	67	100	167	188	160	348	119	266	405	67	14	81			
12	53	316	369	93	140	233	173	104	279	236	120	356	612	790	1402	587	121	508	36	83	119	28	64	92	284	125	205	249	28	80	71	117	250	66	5	93			
13	64	116	180	162	241	203	306	185	491	93	48	496	345	345	496	33	125	125	35	11	144	44	144	144	6	112	202	44	144	144	144	144	144	144	144	144	144		
14	66	44	117	126	251	307	125	57	87	125	125	125	125	125	125	87	178	225	87	178	225	87	178	225	109	49	256	256	256	256	256	256	256	256	256	256			
15	33	47	111	126	150	278	165	204	369	40	295	335	50	52	102	118	98	216	49	65	114	227	204	431	44	81	125	280	1099	1379	92	106	196	9	226	237			
16	168	57	225	46	90	135	144	155	200	294	209	503	141	37	178	91	15	106	132	36	168	55	112	35	39	143	23	664	707	179	218	42	196	57					
17	143	50	110	247	361	608	91	359	450	50	347	397	62	120	182	114	146	260	27	67	94	136	60	196	54	98	52	17	290	307	41	31	72	2	92	94			
18	145	126	273	136	228	324	43	469	512	4	172	176	32	33	65	160	108	266	97	43	140	137	112	249	63	11	74	67	80	155	32	40	72	45	50	95			
19	64	177	241	49	59	108	85	106	191	14	176	190	0	242	242	61	68	129	241	65	308	134	46	180	63	37	100	113	73	186	302	58	360	131	28	159			
20	112	28	140	63	76	139	63	105	172	56	78	132	4	166	170	0	166	166	42	108	148	98	69	167	35	46	61	64	190	254	103	144	247	65	158	223			
21	136	158	274	205	196	401	72	366	458	2	175	177	65	28	93	68	36	102	147	59	186	43	68	111	25	57	82	140	245	166	50	187	237	126	32	158			
22	106	39	145	201	409	610	129	685	814	33	68	101	70	129	199	94	53	111	94	59	153	7	142	149	96	25	121	151	119	270	22	142	164	74	85	158			
23	47	97	144	67	55	122	73	191	266	95	79	174	52	202	257	20	134	197	106	65	83	45	46	85	111	111	202	309	101	99	114	114	114	114	114	114	114	114	114
24	222	286	508	82	391	573	117	89	166	79	76	125	57	91	115	57	91	115	115	78	230	63	270	323	164	111	111	70	183	255	53	113	166	111	111	111			
25	183	154	1407	39	21	114	39	153	69	26	97	100	51	151	145	35	200	122	95	217	4	75	79	115	378	493	91	61	152	154	154	154	154	154	154	154	154	154	
26	29	691	952	30	32	67	124	136	260	265	48	314	32	94	126	98	116	214	59	27	86	82	57	139	25	215	240	92	95	187	59	4	63	30	22	95	125		
27	119	199	220	214	13	22	60	30	90	41	87	225	91	50	141	84	89	123	19	79	98	73	81	154	200	136	336	316	185	77	77	393	154	62	316	78	100	150	
28	49	111	160	74	54	128	124	77	201	53	140	193	86	40	126	139	78	217	195	0	196	37	94	131	49	133	182	193	66	259	66	32	98	103	90	190	190		
29	21	84	85	132	56	188	17	139	156	15	91	111	76	187	87	64	151	61	102	163	23	87	100	130	252	182	363	225	588	32	120	150	150	150	150				
30	25	50	75	147	117	264	57	83	140	316	103	419	102	21	123	26	95	121	90	115	205	108	126	234	75	74	149	367	188	555	90	87	177	177	177	177			
31	62	44	106	6	94	100	105	39	379	464	3	106	105	39	67	82	79	161	29	38	67	82	94	89	163	69	165	234	234	234	234	234	234	234	234	234	234		
M	97	190	287	98	152	250	128	155	283	89	152	221	101	140	241	113	115	226	85	71	156	93	105	198	81	112	193	118	185	303	128	115	243	77	83	160			

Dombas.

Horizontal Intensity.

Unit Gamma.

1949.	J A N			F E B			M A R			A P R			M A Y			J U N			J U L			A U G			S E P			O C T			N O V			D E C			
	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S				
1	0	522	522	22	33	55	307	97	494	269	0	269	85	105	190	88	854	742	52	85	137	83	62	145	296	59	355	77	69	146	153	416	1949	0	300	300	
2	76	930	1006	101	3	104	164	217	361	133	5	138	132	147	279	137	247	482	93	66	159	597	76	673	387	347	734	26	144	170	491	517	1058				
3	8	192	200	122	123	351	66	81	150	131	11	86	11	85	112	111	111	111	121	319	111	127	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
4	16	0	166	3	175	178	47	85	132	111	89	224	928	1152	1311	679	2010	50	69	119	127	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
5	176	0	176	47	144	191	61	49	110	47	54	101	350	529	879	2038	2212	4310	50	81	131	362	312	674	388	114	502	58	317	375	79	109	188	15	108	123	
6	72	90	162	597	372	969	110	2	112	62	35	97	116	390	506	91	913	1004	54	127	181	67	85	192	170	68	238	273	342	615	168	33	201	191	21	212	
7	0	369	369	55	1077	132	97	39	136	199	415	614	166	187	353	200	23	265	235	66	301	411	20	431	73	157	230	310	1310	1629	3199	1365	0	186	305		
8	74	62	136	34	33	67	109	20	188	1237	2685	3922	235	71	306	86	67	153	320	43	363	192	1581	1733	142	89	231	548	1249	177	55	0	55	159	2	161	
9	66	74	140	33	58	91	418	76	492	0	443	443	286	49	337	139	59	198	00	171	271	395	101	496	34	179	213	71	576	647	272	0	272	62	202	261	
10	62	48	110	194	0	194	6	230	236	475	966	1441	103	109	212	221	3	224	86	35	121	170	23	193	64	93	101	58	159	115	48	163	24	180	184		
11	40	185	225	276	49	325	75	42	118	426	156	584	73	209	282	304	23	417	46	87	133	125	23	148	117	71	383	863	85	448	64	205	269	335	0	335	
12	129	324	453	6	21	17	11	87	250	493	217	879	180	301	3071	980	0	1003	1895	193	58	252	80	252	252	140	98	36	23	249	317	17	10	201	17	17	
13	89	38	35	119	94	14	557	253	100	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103		
14	8	84	92	126	41	167	377	552	626	35	363	397	13	505	518	253	32	285	0	193	103	200	683	883	68	95	163	1650	4110	3760	192	62	254	0	320	320	
15	18	88	108	126	41	167	377	552	626	35	363	397	13	505	518	253	32	285	0	193	103	200	683	883	68	95	163	1650	4110	3760	192	62	254	0	320	320	
16	36	104	140	55	87	142	826	194	1020	557	146	703	327	862	689	703	273	273	245	153	308	52	137	189	78	81	159	284	1746	2030	101	335	436	0	334	335	
17	150	6	156	479	167	646	302	1321	1623	114	314	428	15	218	233	242	34	276	148	217	365	366	34	400	141	54	146	41	231	272	157	0	157	383	383		
18	106	113	219	24	389	413	329	167	1496	155	50	205	144	40	84	81	170	270	135	229	364	192	84	276	129	9	131	140	75	215	221	0	221	26	137	163	
19	0	394	394	38	84	122	172	63	235	71	62	133	111	8	119	147	111	264	286	316	602	135	66	201	102	0	102	241	256	297	1374	259	163	166	29	193	195
20	20	134	154	230	4	234	71	54	231	14	38	179	71	37	108	61	111	192	68	102	170	67	93	160	45	30	75	61	170	231	1689	1642	3	281	284		
21	46	61	107	245	268	51	161	323	461	22	139	156	51	217	87	100	128	60	82	142	90	44	131	36	91	303	207	448	58	264	264	105	105	105			
22	45	61	113	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153			
23	115	123	227	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153			
24	429	472	901	254	203	457	26	92	118	65	40	106	31	190	221	152	72	224	107	100	207	142	4	146	29	367	396	49	301	350	17	177	194	51	112	163	
25	0	1055	7056	8071	33	26	59	145	36	181	103	62	165	307	68	375	163	260	423	228	73	501	323	155	384	226	1210	65	78	143	33	48	81	82	42	124	
26	467	5740	6207	157	3	160	88	236	199	17	216	302	188	490	113	224	337	9	271	280	119	39	188	33	307	340	55	15	70	84	0	84	0	240	240		
27	0	756	756	153	48	201	134	4	138	172	111	183	222	207	429	49	157	206	53	98	149	232	56	288	323	95	325	445	1054	223	1277	101	4	105	33	97	130
28	0	334	334	90	39	129	316	4	320	95	126	221	230	194	424	114	128	242	83	118	201	29	91	120	15	219	234	315	115	466	199	0	199	39	72	111	
29	0	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102			
30	29	31	60	60	52	85	30	160	190	647	565	1615	142	65	227	212	178	177	18	105	86	106	194	26	54	20	533	335	866	249	21	210	210				
31	41	15	56	60	10	79	209	1589	1888	153	6	139	203	10	205	171	70	241	171	70	241	171	70	241	171	70	241	171	70	241	171	70	241	171	70	241	
M	113	604	717	131	282	413	237	84	578	201	266	467	236	432	688	288	302	590	136	102	240	216	177	393	160	189	349	284	486	770	253	215	468	92	113	205	

B-444

III-1-2-3-4-5

1148

Storminess Diurnal Sums

Dombas.

Declination.

Unit Gamma.

1950.	J A N			F E B			M A R			A P R			M A Y			J U N			J U L			A U G			S E P			O C T			N O V			D E C						
	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S							
1	50	68	118	99	50	149	82	84	166	86	362	448	52	92	144	54	123	177	146	84	230	112	142	254	58	40	98	274	281	555	190	222	412	39	100	139				
2	4	156	160	155	114	269	58	84	142	101	580	461	103	194	297	57	300	357	0	145	145	112	232	344	25	88	113	63	459	522	88	155	243	41	57	98				
3	5	80	85	47	169	216	50	85	135	26	220	379	154	845	499	56	146	204	72	339	404	96	108	204	335	249	584	242	244	486	71	61	132	46	57	103				
4	69	177	241	24	40	13	18	21	24	42	30	317	81	105	203	148	40	120	282	121	15	190	203	57	307	367	266	302	324	107	51	158	107	51	158					
5	7	58	155	22	21	23	19	6	125	239	190	129	44	13	87	10	19	130	70	53	123	203	288	70	24	23	32	80	222	29	61	130	29	61	130					
6	64	80	144	57	35	92	86	200	205	53	408	461	17	153	170	244	67	311	50	36	68	83	211	294	308	200	506	146	288	434	39	88	57	121	26	147				
7	64	89	173	116	14	230	86	191	277	29	298	327	48	108	158	15	159	170	53	92	115	199	321	124	122	246	183	203	472	21	48	99	134	48	182					
8	17	25	123	94	102	196	55	69	124	13	166	179	67	73	140	189	267	458	123	25	148	200	192	392	44	202	246	59	80	139	43	68	111	48	91	130				
9	105	91	198	93	164	257	156	34	190	28	79	107	43	24	67	124	66	220	65	56	121	197	131	328	111	235	346	62	24	85	217	420	637	134	62	196				
10	118	55	173	49	43	92	45	8	53	93	72	165	46	94	140	124	155	267	22	289	208	175	363	41	45	86	78	83	161	198	37	57	321	378	6	40	46	106	94	200
11	133	89	222	41	56	97	73	51	124	35	49	84	139	163	302	78	30	108	158	194	352	149	125	274	144	194	328	37	64	101	113	225	338	161	0	161	161	0	161	
12	93	103	196	4	161	165	75	24	99	169	40	229	128	70	198	47	60	107	269	327	616	108	146	254	117	107	167	43	23	121	200	31	317	193	317	510	317	510	317	
13	139	55	194	88	86	98	49	49	98	87	30	117	135	144	279	23	47	107	125	82	207	144	98	242	97	120	218	57	114	171	78	402	480	134	65	650	134	650	134	
14	14	125	125	55	51	125	75	71	74	21	107	155	53	50	125	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10					
15	125	125	125	131	57	169	13	32	335	267	22	289	208	175	363	41	45	86	78	83	161	198	37	57	321	378	6	40	46	106	94	200								
16	161	177	177	9	74	83	36	26	105	198	144	52	206	84	10	103	80	87	167	32	61	0	187	169	356	89	634	723	39	66	105	158	16	174						
17	0	137	137	127	16	143	69	32	101	71	214	285	143	39	182	170	89	239	19	97	116	23	116	141	54	247	301	225	303	98	150	248	70	11	11					
18	57	62	119	57	13	70	97	43	140	78	233	211	23	57	80	29	154	183	64	51	115	170	181	351	81	159	240	95	112	207	90	75	86	161	86	161				
19	115	208	228	28	10	38	54	336	400	373	126	499	69	31	100	18	124	142	56	63	119	320	302	41	68	109	39	38	77	85	107	191	191	191						
20	124	243	367	541	249	790	2	190	192	122	151	275	59	58	117	88	100	138	76	83	164	208	263	110	272	272	388	37	52	88	83	29	112	135	79	214	214			
21	34	233	267	9	72	761	133	197	330	56	32	88	34	14	148	68	54	122	42	110	152	156	84	240	240	154	54	6	60	54	45	99	179	179	179					
22	23	137	160	46	551	597	71	224	295	102	86	108	78	68	146	94	28	122	138	60	199	208	49	87	27	74	101	149	110	259	269	157	426	125	445	125				
23	25	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160				
24	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
25	121	194	315	95	147	242	52	224	276	65	26	91	114	70	184	154	80	234	301	73	190	177	308	126	280	406	39	78	117	134	357	491	223	247	497	247	497	247		
26	47	173	220	0	50	56	53	142	195	84	23	57	127	83	107	0	372	372	77	49	126	53	23	76	82	231	313	57	137	194	181	158	339	339	161	461	417	161	417	161
27	11	352	363	24	39	63	56	389	445	64	95	159	146	76	222	14	70	84	114	24	136	136	43	107	119	139	125	8	133	227	298	525	82	160	242	82	160	242	82	
28	140	104	244	45	21	205	89	195	284	98	63	163	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120		
29	56	38	94	32	93	125	24	67	64	217	464	311	97	158	255	221	76	297	188	224	130	184	314	30	47	77	84	615	699	69	140	209	26	110	110	110	110	110	110	
30	38	207	245	11	98	107	474	152	152	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168		
31	71	99	170	254	83	357	23	71	94	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
M	70	127	197	82	154	236	77	118	195	128	135	263	96	117	213	92	105	197	98	127	225	124	162	286	109	177	286	122	221	343	104	160	264	121	121	242				

Horizontal Intensity.

Unit Gamma.

1950.	J A N			F E B			M A R			A P R			M A Y			J U N			J U L			A U G			S E P			O C T			N O V			D E C		
P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S				

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Storminess Diurnal Sums

Dombas.

Declination.

Unit Gamma

1951.	J A N			F E B			M A R			A P R			M A Y			J U N			J U L			A U G			S E P			O C T			N O V			D E C			
	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S	P S	N S	A S				
1	134	110	244	98	470	558	57	80	137	30	96	126	116	174	1290	127	43	170	99	226	325	305	181	496	10	80	90	64	53	117	118	36	154	70	190	260	
2	106	174	280	21	86	107	37	41	78	376	198	574	123	701	824	41	136	177	146	935	1081	57	264	321	7	52	59	81	127	208	103	193	296	141	235	446	
3	87	119	208	9	71	80	98	8	108	64	473	537	27	20	236	44	106	150	65	149	210	85	23	111	98	48	144	152	51	49	129	142	149	142	323	337	
4	38	75	113	188	6	192	64	81	145	174	187	301	32	313	365	129	150	157	152	167	170	15	107	222	102	103	133	34	74	75	260	322	582	87	327	414	
5	71	83	160	164	188	210	20	38	59	119	169	249	17	91	108	168	19	177	22	180	87	63	150	38	10	118	34	117	184	184	231	57	121	178			
6	43	15	58	66	335	403	70	121	191	234	340	974	9	178	184	202	60	262	38	28	66	152	40	102	72	162	254	51	29	75	246	105	351	11	69	180	
7	30	52	84	15	124	156	132	152	284	97	268	365	0	132	132	246	30	147	177	52	130	182	74	153	227	366	387	753	39	401	440	63	137	200			
8	95	30	125	100	244	344	66	431	499	97	268	365	0	132	132	246	30	147	177	52	130	184	74	153	227	37	361	398	8	170	175	131	463	576			
9	51	15	66	128	217	345	64	535	619	119	146	265	343	79	422	138	90	228	118	108	226	83	100	183	46	176	222	54	290	344	245	48	293	15	311	426	
10	117	93	210	88	208	296	61	514	575	124	170	294	178	145	324	135	0	260	260	41	108	149	159	81	34	422	6	92	98	12	310	422					
11	78	247	325	127	195	322	140	294	434	77	121	198	61	214	275	93	59	152	66	131	289	30	319	120	327	447	62	56	212	52	141	193	154	376	530		
12	51	123	174	153	306	459	269	42	311	76	353	409	95	92	191	13	105	121	25	89	114	124	101	243	19	512	531	118	66	84	155	347	272	56	177	200	
13	24	265	290	162	82	244	221	153	374	198	276	57	65	125	29	235	264	27	107	134	374	145	855	150	51	34	407	202	361	314	52	186	238				
14	54	92	147	66	140	208	208	210	210	105	162	162	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105		
15	34	234	268	66	9	3	52	351	413	63	75	118	225	343	279	122	401	110	235	345	135	76	211	180	197	377	27	140	167	89	263	352	58	365	423		
16	32	235	267	95	42	141	173	162	355	40	88	129	59	277	336	177	37	214	228	68	166	234	178	468	546	108	317	425	96	157	253	55	94	149			
17	151	19	200	13	9	182	42	134	176	47	92	159	207	92	299	152	62	214	151	102	235	154	41	195	44	343	387	155	495	650	220	366	586	58	264	322	
18	78	48	126	156	124	280	67	150	217	387	249	636	47	111	158	59	754	813	25	85	210	48	38	86	145	160	305	79	385	464	33	123	156	34	287	321	
19	132	197	329	152	59	211	66	60	156	85	273	356	10	176	186	281	20	146	168	195	2	197	552	159	711	44	602	647	30	95	125	45	178	223			
20	98	104	202	51	15	66	18	147	165	181	555	739	110	37	152	108	21	219	23	18	207	177	304	481	225	388	613	26	258	284	138	197	335				
21	63	124	187	39	128	167	77	154	154	90	310	400	73	121	194	121	57	178	32	104	136	101	284	365	222	360	582	78	142	220	10	244	254	72	56	128	
22	281	514	795	164	359	523	184	467	651	155	136	291	51	117	168	79	110	150	146	250	499	615	12	42	425	145	21	104	104	247	140	104	104	104	104	104	
23	122	160	282	90	468	555	142	234	234	52	333	359	173	62	435	124	179	303	78	39	115	35	79	116	69	248	337	98	395	493	42	51	93	6	51	57	
24	4	65	107	104	304	304	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152		
25	32	77	109	182	90	272	61	253	314	254	461	715	24	130	158	268	62	180	210	145	147	203	54	35	89	147	147	10	141	147	147	147	147	147	147	147	147
26	21	41	168	130	12	251	80	191	279	72	255	327	261	319	580	45	218	263	109	132	241	210	117	327	0	158	158	153	21	46	174	34	59	39			
27	32	140	172	453	231	221	674	52	136	259	28	216	281	27	740	675	167	61	196	85	181	80	276	367	29	310	570	58	80	138	13	40	53				
28	29	388	415	457	103	560	70	56	126	26	35	59	21	83	110	154	33	187	101	153	236	35	41	176	310	314	205	205	217	317	317	317	317	317	317		
29	28	97	181	490	490	490	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140		
30	118	150	268	82	108	190	27	124	151	82	65	171	22	77	153	68	108	176	88	266	418	119	58	177	177	177	177	177	177	177	177	177	177				
31	495	235	731	11	55	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52			
M	94	143	237	136	168	304	109	187	296	134	216	350	92	21	309	124	105	229	82	156	238	122	135	257	113	318	431	113	198	311	100	206	306	74	204	278	

Horizontal Intensity.

Unit Gamma

1951.	J A N			F E B			M A R			A P R			M A Y			J U N			J U L	
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