

UNIVERSITETET I BERGEN

*Publikasjoner fra*

GEOFYSISK INSTITUTT, AVD. C

Nr. 4

GURO GJELLESTAD and HELGE DALSEIDE

THE MAGNETIC STATION AT DOMBÅS

( $\varphi = 62^{\circ}04'.4\text{N}$ ,  $\lambda = 9^{\circ}07'.0\text{E Gr.}$ )

OBSERVATIONS 1962

1964

A.S JOHN GRIEGS BOKTRYKKERI, BERGEN



UNIVERSITETET I BERGEN

*Publikasjoner fra*

GEOFYSISK INSTITUTT, AVD. C

Nr. 4

GURO GJELLESTAD and HELGE DALSEIDE

THE MAGNETIC STATION AT DOMBÅS

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

OBSERVATIONS 1962

1964

A.S JOHN GRIEGS BOKTRYKKERI, BERGEN





We refer to "Publikasjoner fra Det Norske Institutt for Kosmisk Fysikk" No. 39, Chap. 1, in which has been given general information on instruments and installations at the station, evaluation of the performance of the instruments and accuracy of observations.

In October the absolute house was moved approximately 10 metres towards north-west and at the same time a new *mire* was erected near the railwaystation.

At *Dombås* Mr. *Knut Einbu* supervised the instruments and made magnetic measurements. Scalings of the magnetograms for hourly mean values were undertaken by author II with the assistance of Mr. *J. Breistein* and Miss *Britt Fosse*.

Adopted scale values are given in *Table 1*. In *Table 1* the scale value  $9.60 \gamma/\text{mm}$  (for *D*) is equivalent to 2.4 minutes of arc per mm.

In *Tables 4–6* are given adopted base line values, while the diagram in *Figure 1* gives both observed and adopted base line values. In the diagram large dots represent points of greater weight than the average, while open circles represent points of less weight.

In the following are given 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 *Table 2* are given *monthly* and *annual means* for 1962 for all days and for the 5 international quiet and disturbed days, and in *Table 3* annual means (all days) for the period 1952–1962.

Scalings of magnetograms for hourly mean values have been centered around half-hours, and Universal Time (GMT) has been used consistently in the tables. Calculations and printing of magnetic tables have been performed on punched-card IBM machines at the Institute.

TABLE 1  
ADOPTED SCALE VALUES 1962

Interval starting	Interval ending	D $\gamma/\text{mm}$	H $\gamma/\text{mm}$	Z $\gamma/\text{mm}$
Jan 1	Jan 31	9.60	8.85	6.49*)
...	...	9.60	8.85	*)
...	...	9.60	8.85	*)
Dec 1	Dec 31	9.60	8.85	6.93*)

TABLE 2  
MONTHLY AND ANNUAL MEANS

1962	All days			Quiet days			Disturbed days		
	D	H	Z	D	H	Z	D	H	Z
Jan ....	4°32'.9 W	13989 $\gamma$	47791 $\gamma$	4°33'.0 W	13991 $\gamma$	47788 $\gamma$	4°32'.6 W	13988 $\gamma$	47798 $\gamma$
Feb ....	32.6	993	788	32.9	992	785	32.9	14005	800
Mar ....	32.6	995	784	32.7	997	783	32.2	13993	793
Apr ....	31.9	995	782	31.4	997	790	31.8	985	772
May ....	32.0	14006	791	32.1	14007	790	32.4	14018	795
Jun ....	31.9	005	786	32.4	008	788	32.5	001	781
Jul ....	30.9	001	783	31.3	000	787	30.8	13996	777
Aug ....	30.9	13996	787	31.2	001	793	31.5	987	775
Sep ....	29.9	988	791	30.3	13995	799	29.8	980	781
Oct ....	29.3	987	797	30.2	991	801	27.3	975	785
Nov ....	29.2	995	806	29.5	14001	805	27.9	990	806
Dec ....	28.7	993	806	29.8	000	807	25.2	977	792
Mean	4°31'.1 W	13995 $\gamma$	47791 $\gamma$	4°31'.4 W	13998 $\gamma$	47793 $\gamma$	4°30'.6 W	13991 $\gamma$	47788 $\gamma$

TABLE 3  
ANNUAL MEANS OF THE MAGNETIC ELEMENTS 1952—62

Year	D	H	Z
1952 .....	5°20'.8 W	13871 $\gamma$	47500 $\gamma$
53 .....	12.9	890	532
54 .....	06.8	902	556
55 .....	01.9	911	591
56 .....	4°55'.4	908	624
57 .....	50.6	916	647
58 .....	46.6	929	678
59 .....	42.7	938	712
60 .....	37.9	945	748
61 .....	34.7	972	775
1962 .....	4°31'.1 W	13995 $\gamma$	47791 $\gamma$

\*) Scale values increase by approximately 0.04 $\gamma/\text{mm}$  per month.

TABLE 4  
ADOPTED BASE LINE VALUES  
DECLINATION 1962

Interval starting	Interval starting
Jan 1 4°54'.1	Jul 1 4°54'.3

TABLE 5  
ADOPTED BASE LINE VALUES  
HORIZONTAL INTENSITY 1962

Interval starting	Interval starting
Jan 1 13700 $\gamma$	Sep 1 13703 $\gamma$
Mar 1 701	Oct 1 702
May 1 702	Nov 1 701
Jul 1 13704 $\gamma$	Dec 1 13700 $\gamma$

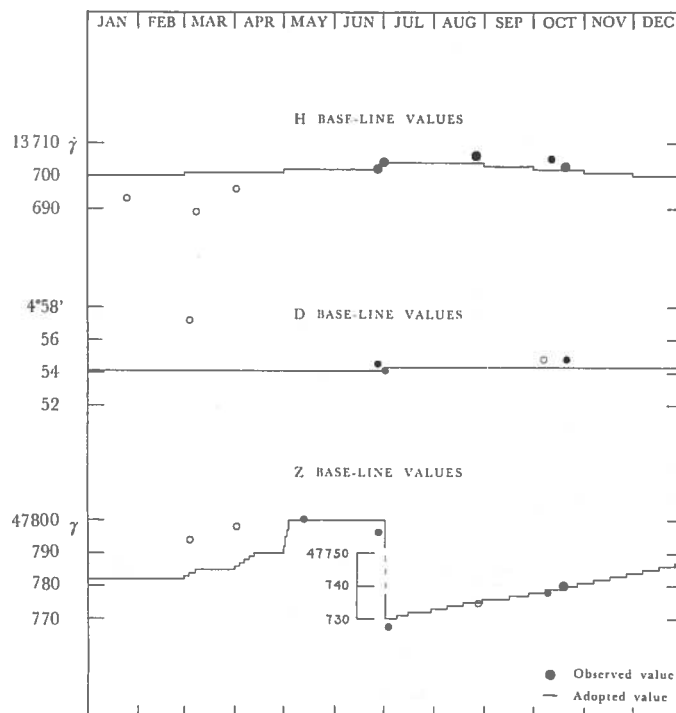


Fig. 1. Observed and adopted base-line values 1962

TABLE 6  
ADOPTED BASE LINE VALUES  
VERTICAL INTENSITY 1962

Interval starting	Interval starting	Interval starting	Interval starting
Jan 1 47782 $\gamma$	Apr 13 47790 $\gamma$	Jul 30 47733 $\gamma$	Oct 28 47741 $\gamma$
Mar 1 783	May 1 792	Aug 9 734	Nov 7 742
4 784	2 795	19 735	17 743
8 785	3 797	31 736	27 744
Apr 1 786	4 800	Sep 17 737	Dec 7 745
4 787	Jul 2 730	28 738	17 746
7 788	9 731	Oct 8 739	27 47747 $\gamma$
10 47789 $\gamma$	16 47732 $\gamma$	18 47740 $\gamma$	

Dombås

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

HOURLY MEAN VALUES.

GMT

Table for January 1962 showing hourly mean values for Dombås. Columns include Day (1-31), Hour (1-24), and Mean. Rows are grouped by month (U, D, M) and day type (Q, D, M, MD).

Table for February 1962 showing hourly mean values for Dombås. Columns include Day (1-28), Hour (1-24), and Mean. Rows are grouped by month (U, D, M) and day type (Q, D, M, MD).

Table for March 1962 showing hourly mean values for Dombås. Columns include Day (1-31), Hour (1-24), and Mean. Rows are grouped by month (U, D, M) and day type (Q, D, M, MD).



Dombás

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

Table for April 1962 showing hourly mean values for Dombás. Columns include Day, Hour (1-24), and Mean. Rows are grouped by day (1-31) and include sub-rows for specific times (e.g., 0 6, 0 7, etc.).

Table for May 1962 showing hourly mean values for Dombás. Columns include Day, Hour (1-24), and Mean. Rows are grouped by day (1-31) and include sub-rows for specific times (e.g., 0 6, 0 7, etc.).

Table for June 1962 showing hourly mean values for Dombás. Columns include Day, Hour (1-24), and Mean. Rows are grouped by day (1-30) and include sub-rows for specific times (e.g., 0 6, 0 7, etc.).



Dombås

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

Table for October 1962 showing hourly mean values for Dombås. Columns include DAY, 1-23, and MEAN. Rows are grouped by day (1-31) and include sub-rows for M, MQ, MD.

NOVEMBER

Table for November 1962 showing hourly mean values for Dombås. Columns include DAY, 1-23, and MEAN. Rows are grouped by day (1-30) and include sub-rows for M, MQ, MD.

DECEMBER

Table for December 1962 showing hourly mean values for Dombås. Columns include DAY, 1-23, and MEAN. Rows are grouped by day (1-31) and include sub-rows for M, MQ, MD.



Dombås

Horizontal Intensity. H = 13300  $\gamma$  + Tabular Values.

APRIL 1962

HOURLY MEAN VALUES.

GMT

Table for April 1962 showing hourly mean values for Dombås. Columns include DAY, hours 1-24, and MEAN. Rows list hourly values and summary statistics (D, O, M, MQ, MD).

MAY

Table for May 1962 showing hourly mean values for Dombås. Columns include DAY, hours 1-24, and MEAN. Rows list hourly values and summary statistics (D, O, M, MQ, MD).

JUNE

Table for June 1962 showing hourly mean values for Dombås. Columns include DAY, hours 1-24, and MEAN. Rows list hourly values and summary statistics (D, O, M, MQ, MD).











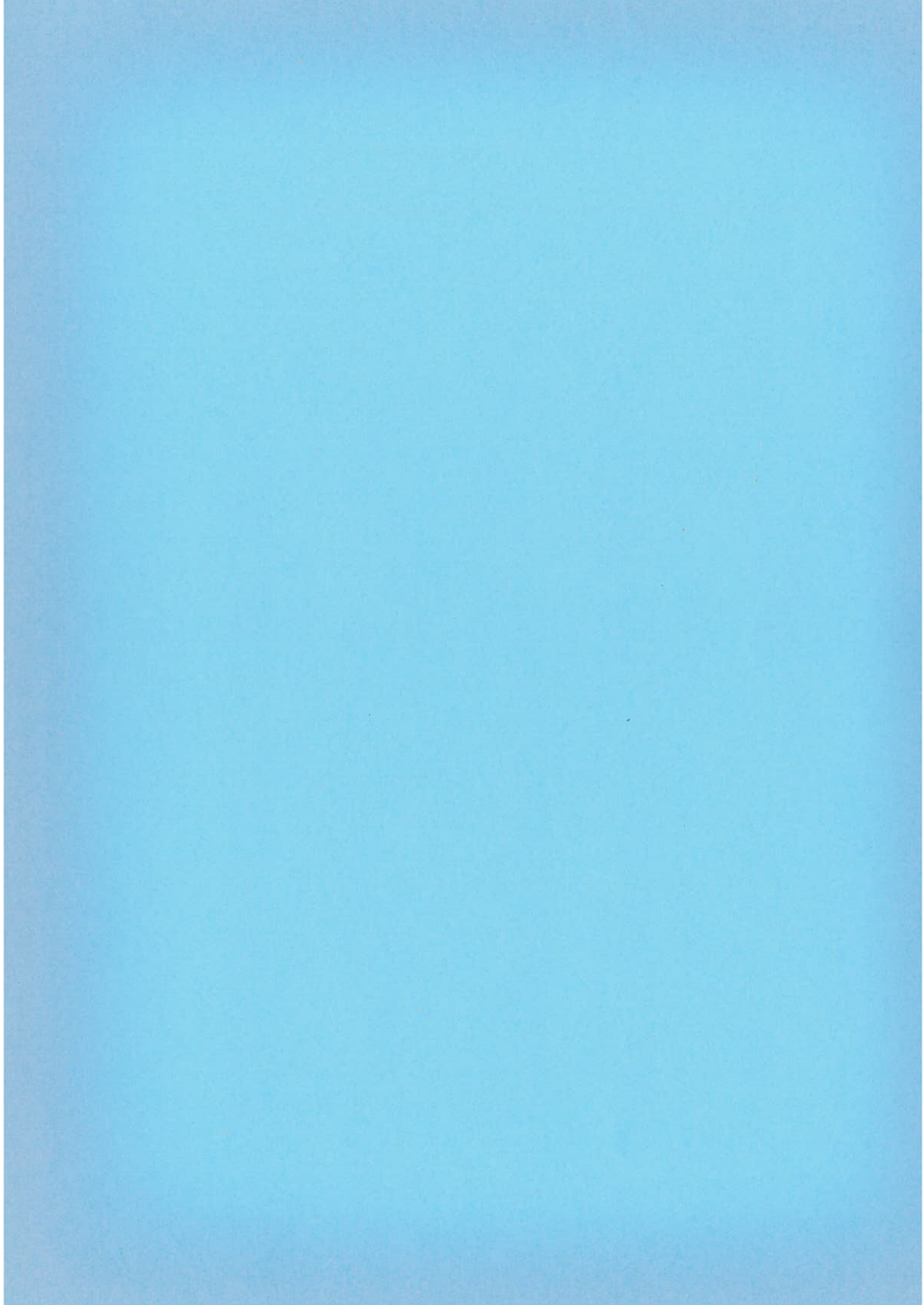












Magnetic data from the Magnetic Station at Dombås may also be found in "Publikasjoner fra det Norske Institutt for Kosmisk Fysikk", Nos.:

9. O. KROGNESS and K. F. WASSERFALL: "Results from the Magnetic Station at Dombås 1916-33." Det Magnetiske Byrå, 1936.
10. K. F. WASSERFALL: "Some of the most characteristic features in the variation of magnetic elements." Det Magnetiske Byrå, 1937.
13. B. TRUMPY and K. F. WASSERFALL: "Results at the Magnetic Station at Dombås 1934-36." — Det Magnetiske Byrå, 1938.
16. K. F. WASSERFALL: "Contribution to the study of the variation in magnetic elements." — Det Magnetiske Byrå, 1939.
18. B. TRUMPY and K. F. WASSERFALL: "Results from the Magnetic Station at Dombås 1937 and 1938." — Det Magnetiske Byrå, 1940.
20. — "Results from the Magnetic Station at Dombås 1939." — Det Magnetiske Byrå, 1941.
23. — "Results from the Magnetic Station at Dombås 1940 and 1941." — Det Magnetiske Byrå, 1944.
28. — "Results from the Magnetic Station at Dombås 1942-45." — Det Magnetiske Byrå, 1949.
35. K. F. WASSERFALL: "Results from the Magnetic Station at Dombås 1946, 1947 and 1948." — Det Magnetiske Byrå, 1953.
39. GURO GJELLESTAD, PER EINBU, HELGE DALSEIDE: "The Magnetic Station at Dombås. — Description of the new station and observations 1952." (Appendix: Storminess Values for 1949-1951). — Magnetisk Byrå, 1957.
42. GURO GJELLESTAD and HELGE DALSEIDE: "The Magnetic Station at Dombås. — Observations 1953." — Magnetisk Byrå, 1958.
43. — "The Magnetic Station at Dombås. — Observations 1954." — Magnetisk Byrå, 1958.
44. — "The Magnetic Station at Dombås. — Observations 1955." — Magnetisk Byrå, 1959.
47. — "The Magnetic Station at Dombås. — Observations 1956." — Magnetisk Byrå, 1960.
48. — "The Magnetic Station at Dombås. — Observations 1957." — Magnetisk Byrå, 1960.
49. — "The Magnetic Station at Dombås. — Observations 1958." — Magnetisk Byrå, 1960.

Magnetic data from Dombås continue in the present series.