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Nr. 6

GURO GJELLESTAD and HELGE DALSEIDE

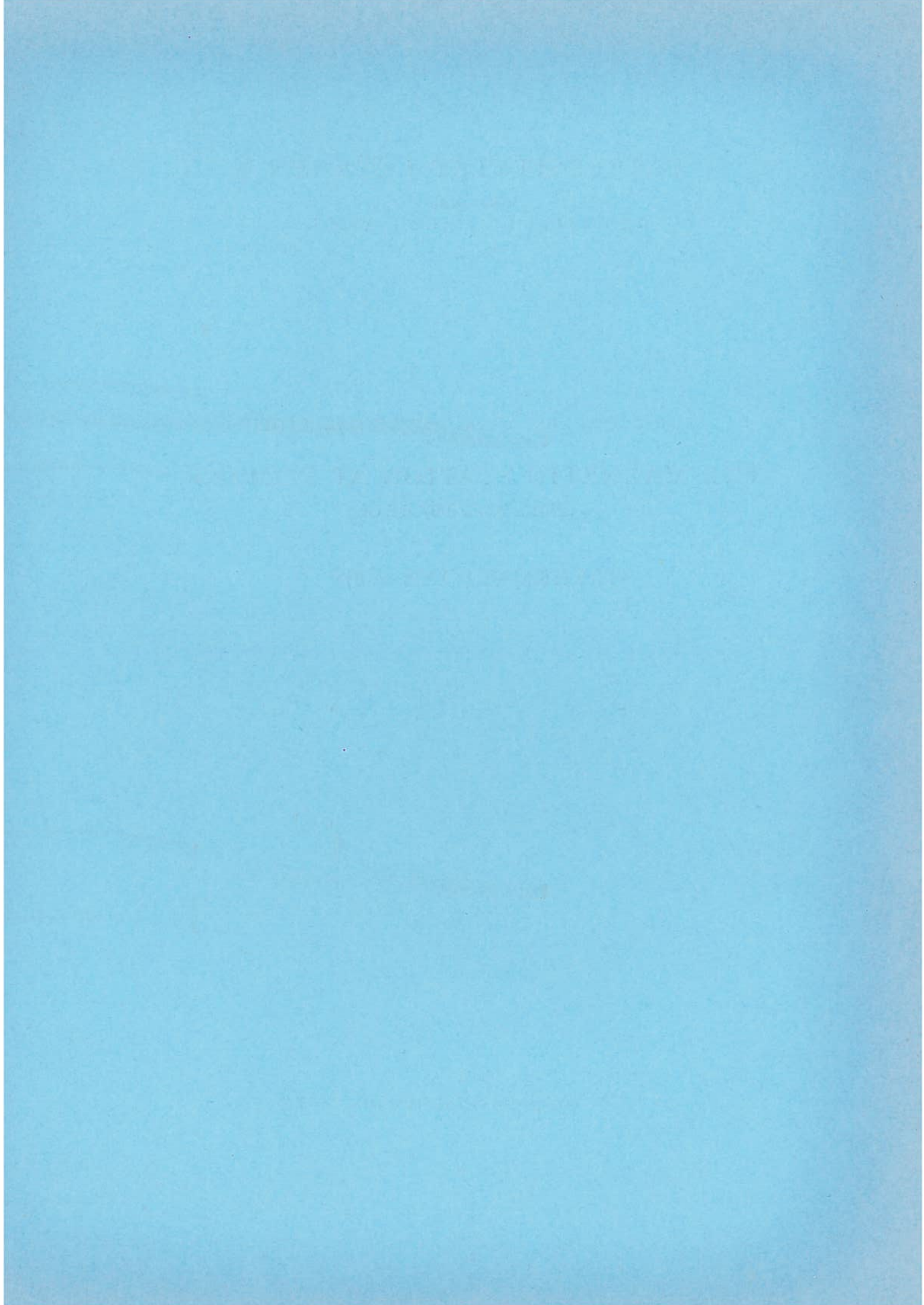
THE MAGNETIC STATION AT DOMBÅS

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

OBSERVATIONS 1964

1966

A.S JOHN GRIEGS BOKTRYKKERI, BERGEN



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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.

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 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 1964 for all days and for the 5 international quiet and disturbed days, and in *Table 3* annual means (all days) for the period 1952–1964.

Scaling 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 1964

Interval starting	Interval ending	D γ/mm	H γ/mm	Z γ/mm
Jan 1	Jun 21	9.60	8.85	7.45
Jun 22	Dec 31	9.60	8.85	6.45

TABLE 2
MONTHLY AND ANNUAL MEANS

1964	All days			Quiet days			Disturbed days		
	D	H	Z	D	H	Z	D	H	Z
Jan	4°25'.0 W	14012 γ	47834 γ	4°25'.0 W	14017 γ	47833 γ	4°25'.4 W	14006 γ	47835 γ
Feb	23.8	013	833	24.3	017	835	23.6	009	831
Mar	23.9	015	831	24.1	018	836	22.3	009	821
Apr	23.5	016	831	24.1	023	836	22.1	006	823
May	23.2	022	831	23.6	027	834	22.9	017	827
Jun	23.5	030	835	23.7	031	836	22.7	019	826
Jul	23.7	032	831	23.7	033	836	24.2	034	824
Aug	23.6	030	833	23.0	031	836	23.6	029	826
Sep	22.9	027	835	23.1	031	837	22.5	023	829
Oct	22.8	026	844	22.6	026	847	21.9	025	842
Nov	22.6	029	847	22.6	031	846	23.1	027	848
Dec	22.9	034	848	22.9	038	846	22.7	031	848
Mean	4°23'.4 W	14024 γ	47836 γ	4°23'.6 W	14027 γ	47838 γ	4°23'.1 W	14020 γ	47832 γ

TABLE 3
ANNUAL MEANS OF THE MAGNETIC ELEMENTS 1952-64

Year	D	H	Z
1952	5°20'.8 W	13871 γ	47500 γ
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
62	31.1	995	791
63	26.8	14005	811
1964	4°23'.4 W	14024 γ	47836 γ

TABLE 4
ADOPTED BASE LINE VALUES
DECLINATION 1964

Interval starting	Interval starting
Jan 1 4°55'.0	Jun 25 4°52'.8
Feb 1 4°54'.0	

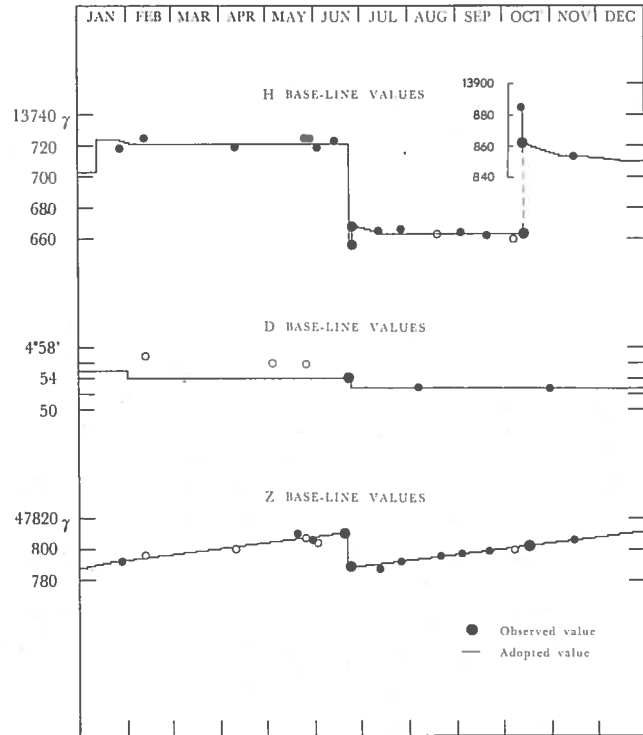


Fig. 1. Observed and adopted base-line values 1964.

TABLE 5
ADOPTED BASE LINE VALUES HORIZONTAL INTENSITY 1964

Interval starting	Interval starting	Interval starting	Interval starting
Jan 1 13703 γ	Jun 30 13667 γ	Oct 18 13860 γ	Nov 7 13853 γ
14 724	Jul 4 666	20 859	26 852
28 723	8 665	23 858	Dec 6 851
31 722	11 664	26 857	16 13850 γ
Feb 3 721	14 663	29 856	
Jun 24 656	Oct 14 862*)	Nov 1 855	
26 13668 γ	16 13861 γ	4 13854 γ	

*) Base line value was 13885 γ in the short interval 18^h11^m Oct 13 to 15^h31^m Oct 14.

TABLE 6
ADOPTED BASE LINE VALUES VERTICAL INTENSITY 1964

Interval starting	Interval starting	Interval starting	Interval starting
Jan 1 47788 γ	Mar 24 47800 γ	Jun 27 47789 γ	Oct 3 47801 γ
6 789	Apr 1 801	Jul 4 790	11 802
11 790	9 802	14 791	19 803
16 791	17 803	22 792	27 804
21 792	25 804	30 793	Nov 4 805
29 793	May 3 805	Aug 7 794	12 806
Feb 5 794	11 806	15 795	21 807
13 795	19 807	23 796	29 808
22 796	27 808	31 797	Dec 7 809
Mar 1 797	Jun 4 809	Sep 9 798	15 810
8 798	12 810	17 799	23 811
16 47799 γ	22 47788 γ	25 47800 γ	31 47812 γ

Dombás

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

Table for APRIL 1964 showing hourly mean values (DAY 1-25) and summary rows (M, MQ, MD) for GMT and MEAN. Columns include day, hour (1-24), and mean values.

Table for MAY showing hourly mean values (DAY 1-31) and summary rows (M, MQ, MD) for GMT and MEAN. Columns include day, hour (1-24), and mean values.

Table for JUNE showing hourly mean values (DAY 1-30) and summary rows (M, MQ, MD) for GMT and MEAN. Columns include day, hour (1-24), and mean values.

Dombås

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

HOURLY MEAN VALUES.

GMT

Table for July 1964 showing hourly mean values for declination. Columns include Day (01-31), hours (1-24), and Mean. Rows are grouped by day (01-31) and month (M, MQ, MD).

Table for August 1964 showing hourly mean values for declination. Columns include Day (01-31), hours (1-24), and Mean. Rows are grouped by day (01-31) and month (M, MQ, MD).

Table for September 1964 showing hourly mean values for declination. Columns include Day (01-30), hours (1-24), and Mean. Rows are grouped by day (01-30) and month (M, MQ, MD).

Dombås

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

OCTOBER 1964

HOURLY MEAN VALUES.

GMT

Table for October 1964 showing hourly mean values for Dombås. Columns include Day (01-31), hours (1-24), and Mean. Rows are grouped by day (01-05, 06-10, 11-15, 16-20, 21-25, 26-31) and include sub-rows for M, MQ, MD.

NOVEMBER

Table for November 1964 showing hourly mean values for Dombås. Columns include Day (01-30), hours (1-24), and Mean. Rows are grouped by day (01-05, 06-10, 11-15, 16-20, 21-25, 26-30) and include sub-rows for M, MQ, MD.

DECEMBER

Table for December 1964 showing hourly mean values for Dombås. Columns include Day (01-31), hours (1-24), and Mean. Rows are grouped by day (01-05, 06-10, 11-15, 16-20, 21-25, 26-31) and include sub-rows for M, MQ, MD.

Dombás

Horizontal Intensity. H = 13300 γ + Tabular Values.

HOURLY MEAN VALUES.

APRIL 1964

GMT

Table for April 1964 showing hourly mean values for various days (DO1 to Q25, M, MQ, MD) and their corresponding mean values. Columns include day, hour (1-24), and mean value.

MAY

Table for May 1964 showing hourly mean values for various days (DO1 to Q25, M, MQ, MD) and their corresponding mean values. Columns include day, hour (1-24), and mean value.

JUNE

Table for June 1964 showing hourly mean values for various days (O1 to Q30, M, MQ, MD) and their corresponding mean values. Columns include day, hour (1-24), and mean value.

Table for July 1964 showing hourly mean values for horizontal intensity. Columns include DAY (01-31), hours (1-24), and MEAN. Rows are categorized by day type (01-31) and month (JULY).

Table for August showing hourly mean values for horizontal intensity. Columns include DAY (01-31), hours (1-24), and MEAN. Rows are categorized by day type (01-31) and month (AUGUST).

Table for September showing hourly mean values for horizontal intensity. Columns include DAY (01-31), hours (1-24), and MEAN. Rows are categorized by day type (01-31) and month (SEPTEMBER).

Dombás

Vertical Intensity. Z = 47000 γ + Tabular Values.

Table for January 1964. Columns: DAY, 1-23, MEAN, GMT. Rows: 01-31. Data includes hourly mean values for various days.

Table for February 1964. Columns: DAY, 1-23, MEAN, GMT. Rows: 01-29. Data includes hourly mean values for various days.

Table for March 1964. Columns: DAY, 1-23, MEAN, GMT. Rows: 01-31. Data includes hourly mean values for various days.

Dombás

Vertical Intensity. Z = 47000 γ + Tabular Values.

HOURLY MEAN VALUES.

GMT

Table for July 1964 showing hourly mean values for days 01 through 31. Columns include DAY, hours 1-24, and MEAN. Rows are grouped by day and include sub-rows for different time periods.

Table for August showing hourly mean values for days 01 through 31. Columns include DAY, hours 1-24, and MEAN. Rows are grouped by day and include sub-rows for different time periods.

Table for September showing hourly mean values for days 01 through 30. Columns include DAY, hours 1-24, and MEAN. Rows are grouped by day and include sub-rows for different time periods.

Dombås

Vertical Intensity. Z = 47000 γ + Tabular Values.

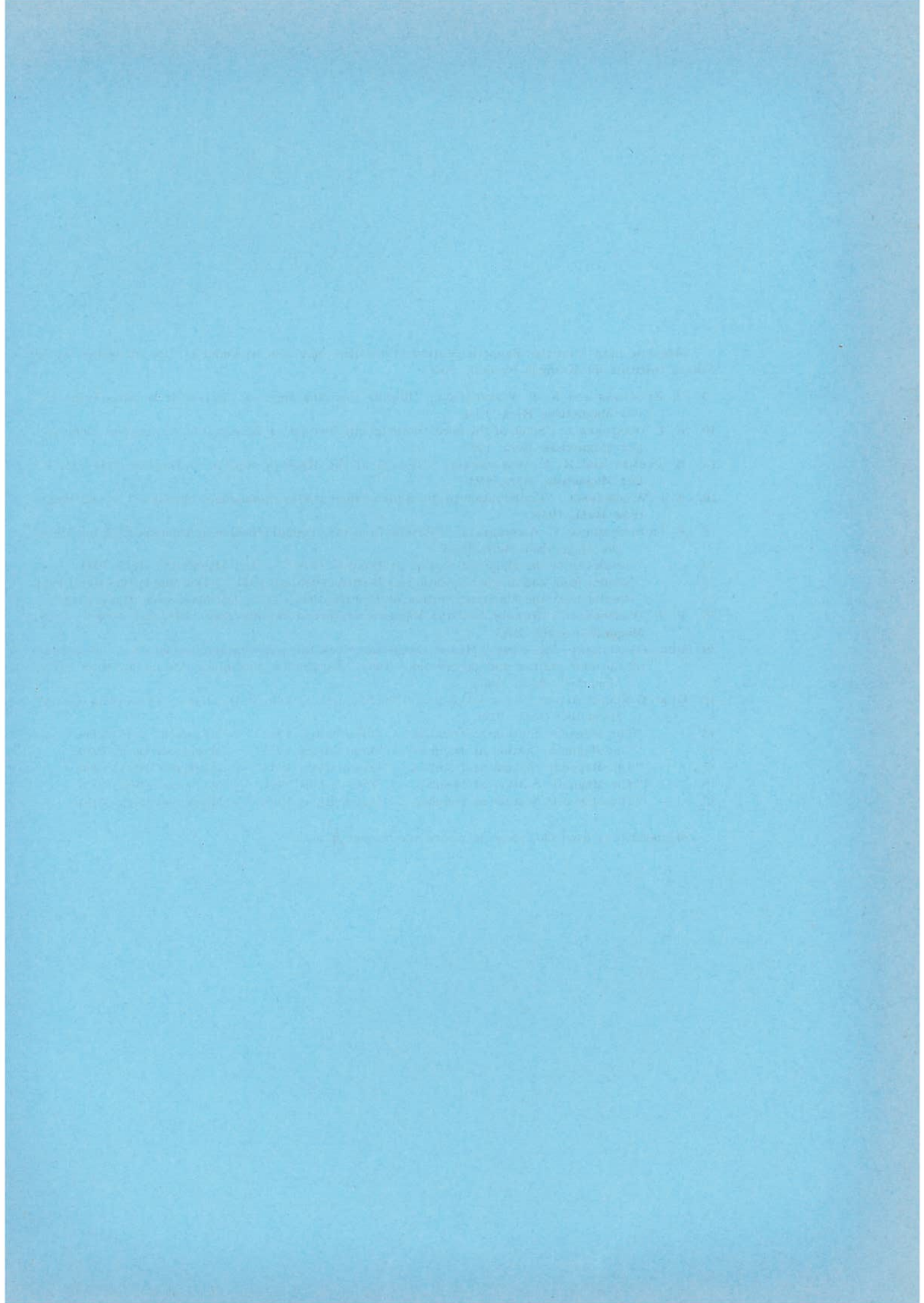
HOURLY MEAN VALUES. Table with columns for DAY, HOUR (1-24), and MEAN. Rows include months OCTOBER (01-31), NOVEMBER (01-30), and DECEMBER (01-31). Includes sub-sections M, MQ, MD.

NOVEMBER

Table with columns for DAY, HOUR (1-24), and MEAN. Rows include months NOVEMBER (01-30) and DECEMBER (01-31). Includes sub-sections M, MQ, MD.

DECEMBER

Table with columns for DAY, HOUR (1-24), and MEAN. Rows include months DECEMBER (01-31). Includes sub-sections 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.