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*Publikasjoner fra*

GEOFYSISK INSTITUTT, AVD. C

Nr. 2

GURO GJELLESTAD and HELGE DALSEIDE

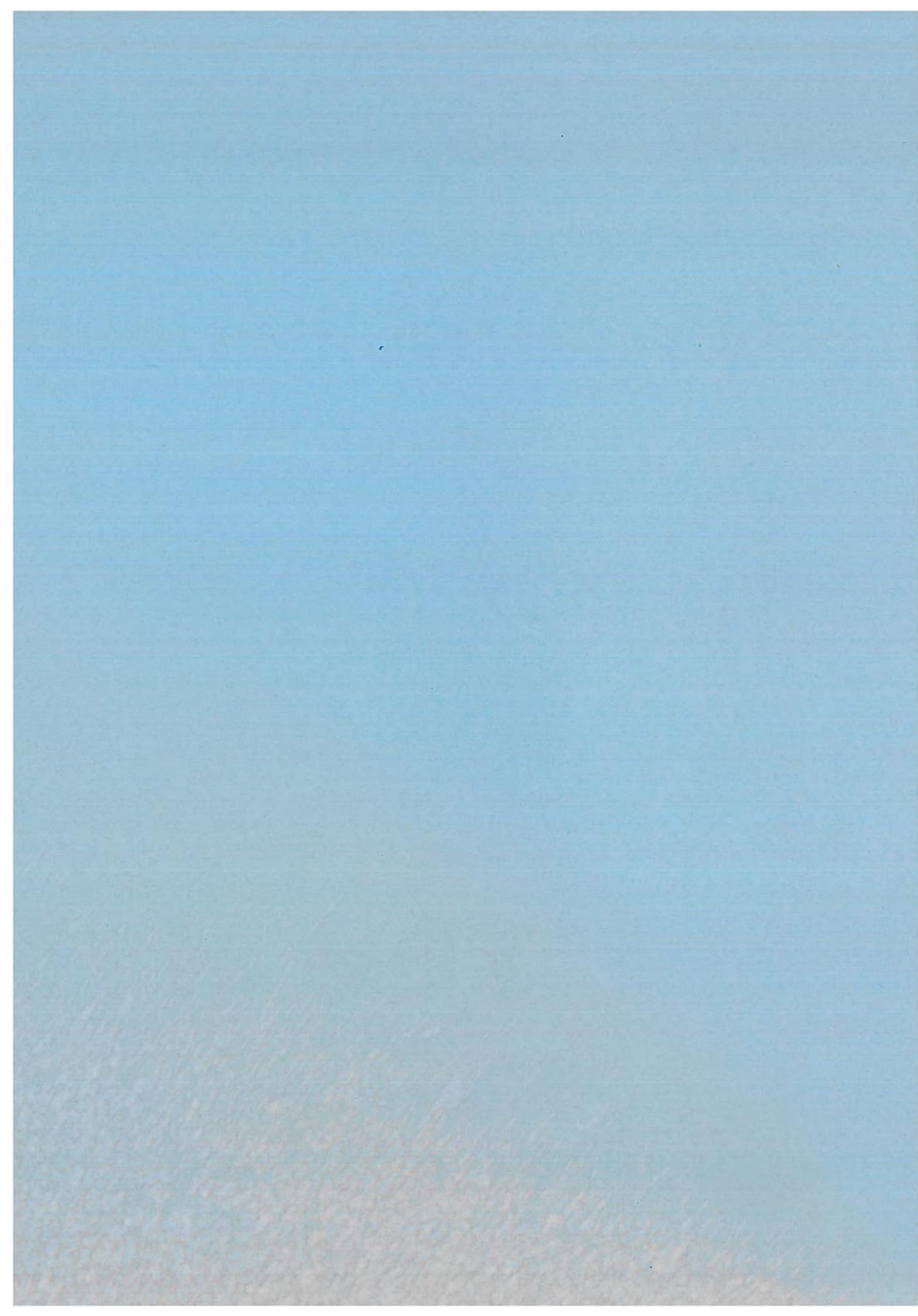
THE MAGNETIC STATION AT DOMBÅS

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

OBSERVATIONS 1960

1962

A.S JOHN GRIEGS BOKTRYKKERI, BERGEN



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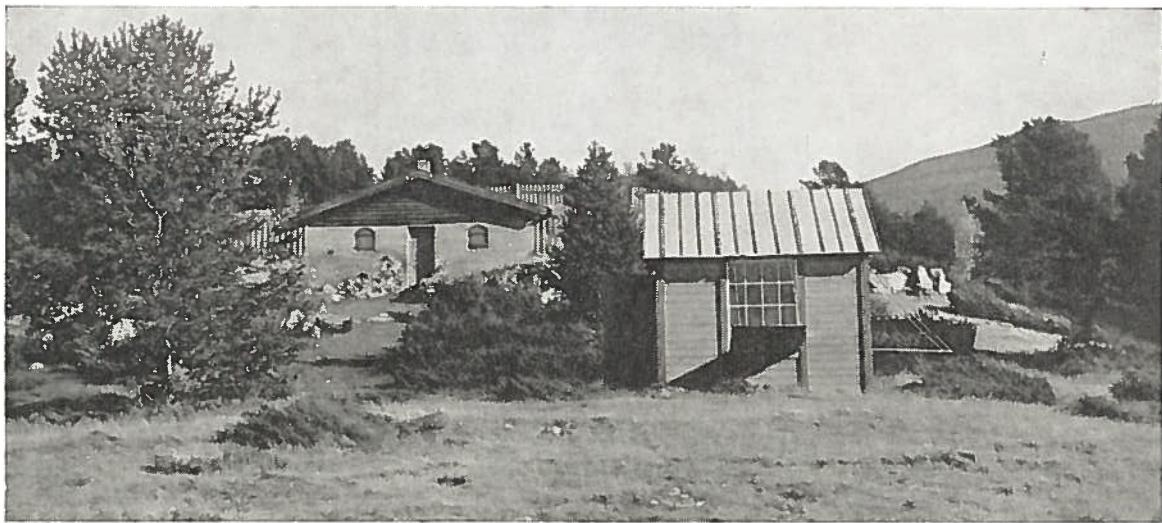
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## INTRODUCTORY REMARKS

We refer to "Publikasjoner fra Det Norske Institutt for Kosmisk Fysikk" No. 39, Chap. I, 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 Messrs. *J. Njåstad* and *J. Breistein*.

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.

During the interval August—December several baseline jumps took place, due to mechanical disturbances at the  $H$ -variometer. While we believe that the monthly mean values ( $M$ ,  $MQ$ ,  $MD$ ) are essentially correct, some uncertainty may be present in some of the individual hourly values or daily means during this interval.

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 1960 for all days and for the 5 international quiet and disturbed days, and in *Table 3* annual means (all days) for the period 1952—1960.

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.

Geofysisk institutt, avd. C, co-operates with the international central institute at De Bilt and with the Committee on Rapid Variations and Earth Currents of IAGA regarding K-indices and C-data for activity, sudden commencements, solar flare effects, etc., and for those data we refer to the IAGA Bulletin.



TABLE 1  
ADOPTED SCALE VALUES 1960

D $\gamma/\text{mm}$	H $\gamma/\text{mm}$	Z $\gamma/\text{mm}$
9.60	8.85	6.45

TABLE 2  
MONTHLY AND ANNUAL MEANS

1960	All days			Quiet days			Disturbed days		
	D	H	Z	D	H	Z	D	H	Z
Jan ....	4°40'.3 W	13949 $\gamma$	47739 $\gamma$	4°41'.1 W	13957 $\gamma$	47735 $\gamma$	4°38'.4 W	13935 $\gamma$	47743 $\gamma$
Feb ....	40.4	955	737	40.8	960	733	40.3	950	737
Mar ....	40.1	953	735	40.3	959	734	38.6	929	723
Apr ....	37.1	926	742	39.5	951	743	33.0	893	721
May ....	38.6	954	751	38.6	961	746	36.1	946	757
Jun ....	38.8	954	735	39.5	962	745	36.3	927	718
Jul ....	38.5	954	744	39.0	964	741	36.6	928	753
Aug ....	38.6	949	740	39.1	952	740	37.6	923	722
Sep ....	36.2	938	747	37.5	952	753	32.4	903	745
Oct ....	35.4	934	758	37.7	958	764	31.6	885	736
Nov ....	34.6	928	772	36.4	949	775	25.8	834	761
Dec ....	36.3	948	775	36.9	956	777	34.2	935	755
Mean	4°37'.9 W	13945 $\gamma$	47748 $\gamma$	4°38'.9 W	13957 $\gamma$	47749 $\gamma$	4°35'.1 W	13916 $\gamma$	47739 $\gamma$

TABLE 3  
ANNUAL MEANS OF THE MAGNETIC ELEMENTS 1952-60

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
1960 .....	4°37'.9 W	13945 $\gamma$	47748 $\gamma$

TABLE 4  
ADOPTED BASE LINE VALUES  
DECLINATION 1960

Interval starting	Interval starting
Jan 1 4°54'.1	Dec 1 4°53'.9

TABLE 5  
ADOPTED BASE LINE VALUES  
HORIZONTAL INTENSITY 1960

Interval starting	Interval starting
Jan 1 13730 γ	Aug 26 13675 γ
6 729	Oct 5 665
21 728	Nov 8 592
Feb 5 727	Dec 1 539
20 726	3 392
Mar 6 725	15 712
21 724	17 711
Apr 5 723	18 710
20 722	20 709
May 5 721	21 708
20 720	23 707
Jul 1 719	24 706
17 718	26 705
Aug 1 717	27 704
13 716	29 703
21 13715 γ	30 13702 γ

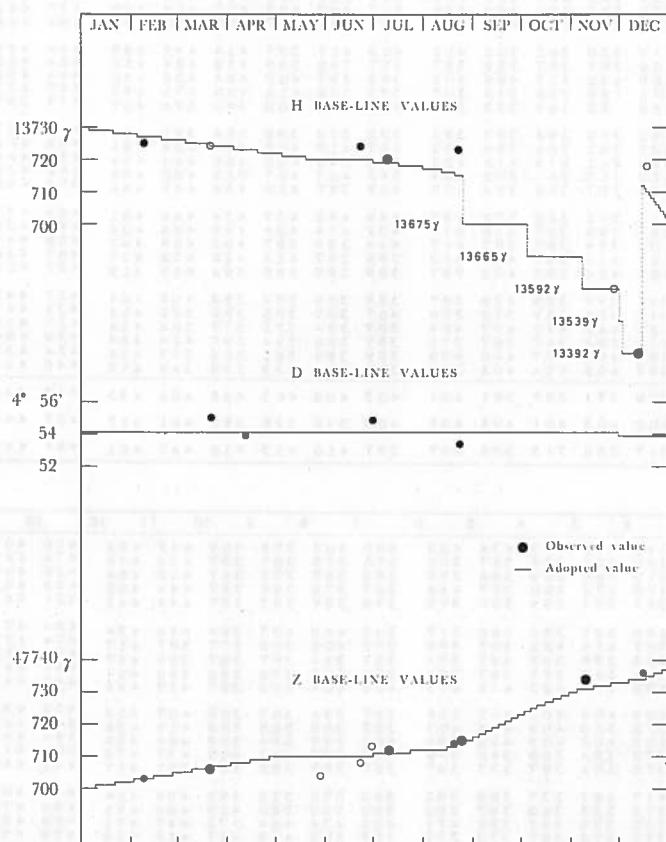


Fig. 1. Observed and adopted base-line values 1960.

TABLE 6  
ADOPTED BASE LINE VALUES  
VERTICAL INTENSITY 1960

| Interval starting |
|-------------------|-------------------|-------------------|-------------------|-------------------|
| Jan 1 47700 γ     | Apr 3 47708 γ     | Sep 1 47716 γ     | Oct 3 47724 γ     | Nov 14 47732 γ    |
| 10 701            | 15 709            | 5 717             | 7 725             | 26 733            |
| 22 702            | 27 710            | 9 718             | 11 726            | Dec 7 734         |
| Feb 3 703         | Jul 1 711         | 13 719            | 16 727            | 18 735            |
| 15 704            | 24 712            | 17 720            | 21 728            | 23 736            |
| 27 705            | Aug 16 713        | 21 721            | 26 729            | 28 47737 γ        |
| Mar 10 706        | 22 714            | 25 722            | 31 730            |                   |
| 22 47707 γ        | 27 47715 γ        | 29 47723 γ        | Nov 5 47731 γ     |                   |





















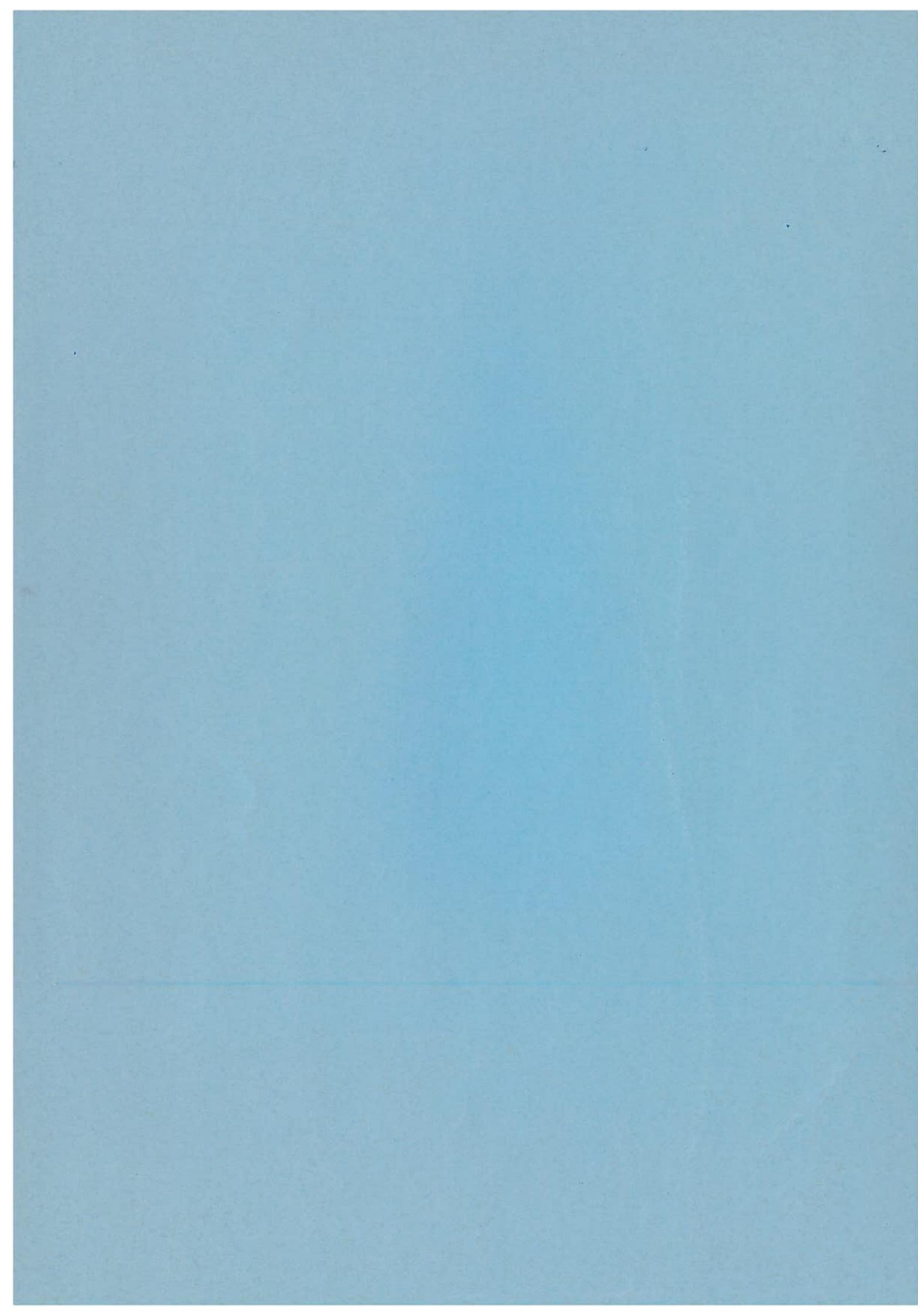












Magnetic data from the Magnetic Station at Dombås may also be found in "Publikasjoner fra det Norske Institutt for Kosmisk Fysikk", Nos.:

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 observation 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.