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Publikasjoner fra
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Nr. 11

EINAR GJØEN and HELGE DALSEIDE

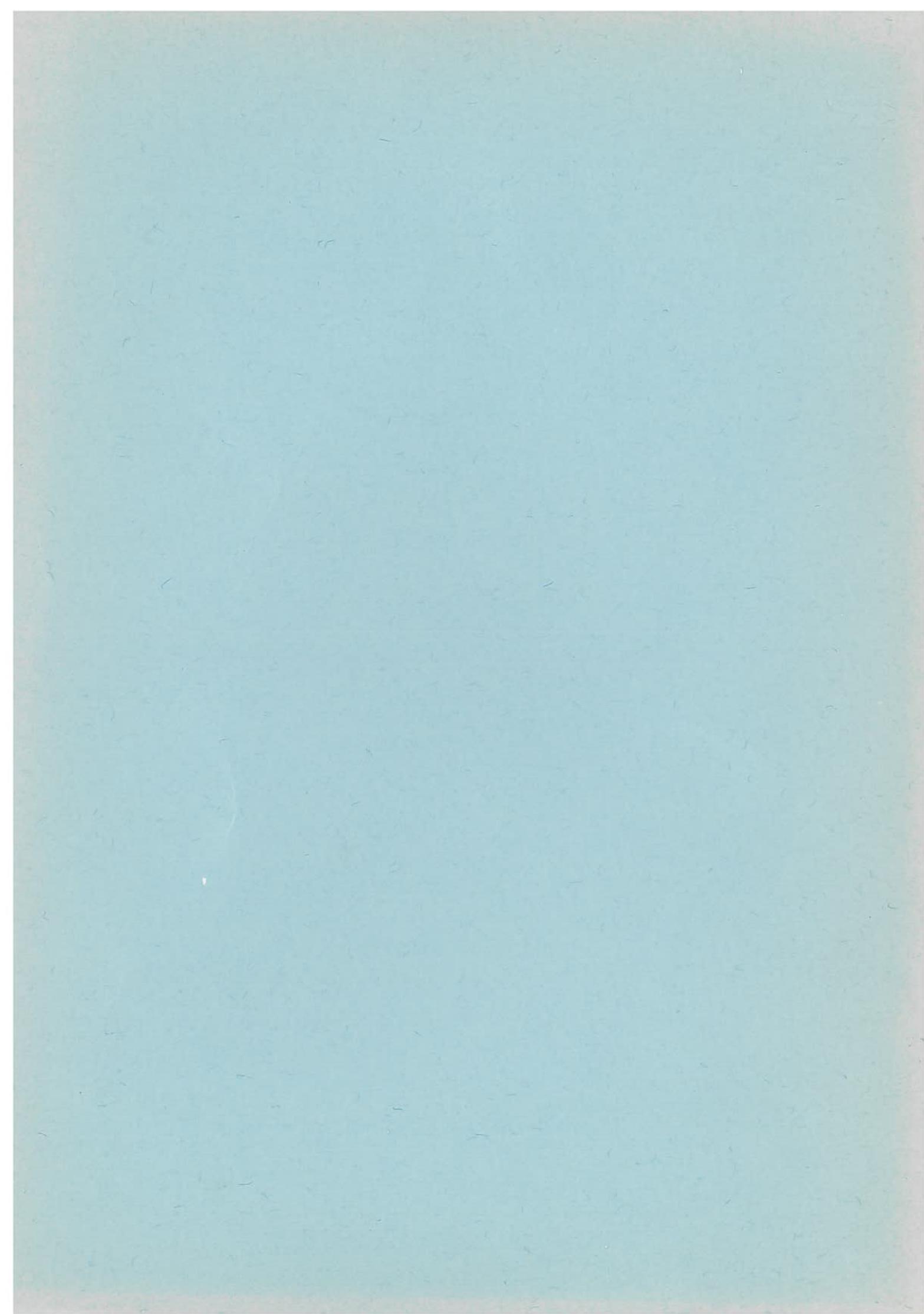
THE MAGNETIC STATION AT DOMBÅS

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

OBSERVATIONS 1969

1972

A.S JOHN GRIEGS BOKTRYKKERI, BERGEN



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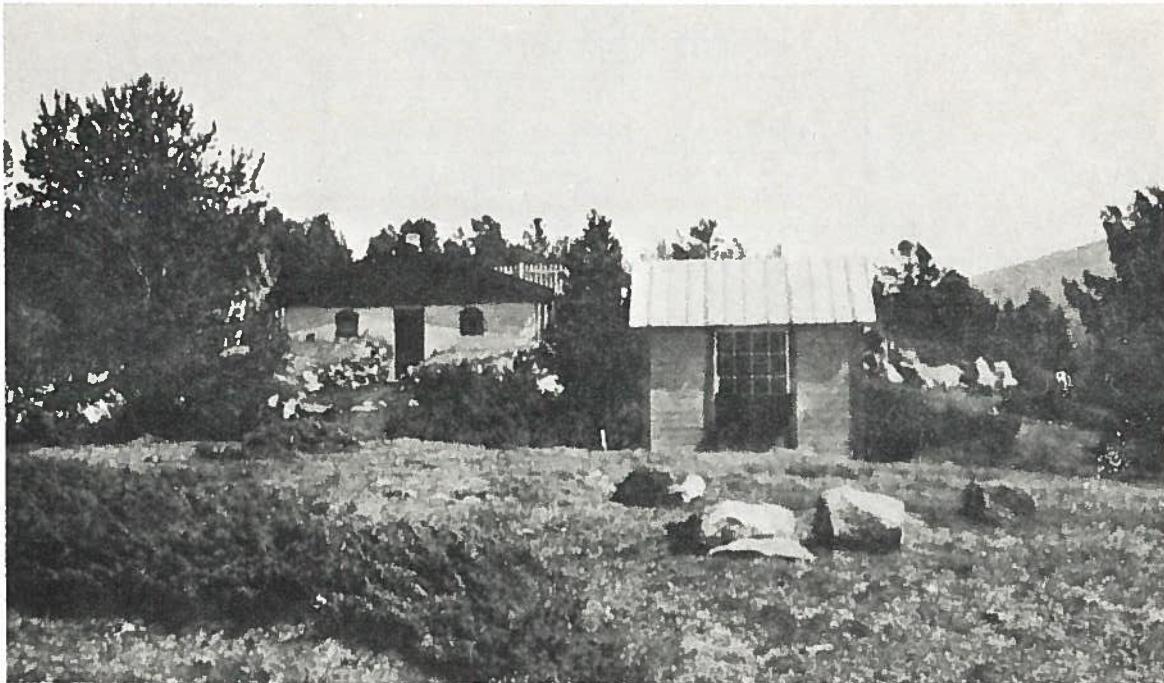


OBITUARY

Associate Professor Guro Else Gjellestad died on January 11, 1972 after a period of illness. She was 57. Guro Gjellestad graduated in 1950 from the University of Oslo with degrees in Astronomy, Physics and Mathematics. The thesis for the cand.real. degree was about magnetic stars. The years 1951-55 were spent in U.S.A. at various institutions and astronomical observatories. Among others she worked with Professors S. Chandrasekhar and H.W. Babcock on problems in cosmical magnetism and hydrodynamics. In 1955 she returned to her home-town Bergen as scientist at Magnetic Bureau, Norwegian Institute of Cosmic Physics. The Magnetic Station at Dombås had just been moved to a new site and new variometers had been installed. The main part of her time in the following years was therefore spent with the reorganization of the observatory, and she brought it up to international standard. For the first time it became possible to publish absolute hourly mean values from Dombås. In 1961 the University of Bergen took over the Magnetic Station, and Guro Gjellestad became Associate Professor at the Geophysical Institute and head of the Department of Geomagnetism. This made her able to introduce a new geophysical discipline in Norway: palaeo- and rock-magnetism. Under her entusiastic leadership and in close cooperation with Professor K. Runcorn at the University of Newcastle, a competent research group has been established.

Her personality made her a very useful member of many University committees and she showed strong interest in several scientific and educational matters. She also acted as National Representative to various IUGG/IAGA meetings.

Guro Gjellestad will be remembered by colleagues and students as a good leader and friend, and her death is a great loss to the University and especially to the Department of Geomagnetism.



Wiew to the east: variometer house to the left, absolute house to the right.

GENERAL INFORMATION

The Magnetic Station at Dombås belongs to the University of Bergen and is operated by the Department of Geomagnetism, Geophysical Institute, Allégt. 70, N-5014 Bergen, Norway. The altitude of the observatory is 660 m above sea level, and its geographical coordinates are: $\varphi = 62^{\circ}04'.4$ N, $\lambda = 09^{\circ}07'.0$ E. The dipole coordinates (North geomagnetic pole at $\varphi = 78.5^{\circ}$ N, $\lambda = 291^{\circ}$ E) are: $\Phi = 62.3^{\circ}$ N, $A = 100.1^{\circ}$ E.

The observatory operates a set of three La Cour variometers (D, H and Z) with paper speed 15 mm/hour.

For absolute observations are used two QHM's, two BMZ's and an Askania Declinometer.

Further information about the observatory and its equipment can be found in the IAGA publication «Description des Observatoires Geomagnetique, I», published by l'Institut Royal Meteorologique de Belgique, 1957.

Mr. Knut Einbu is in charge of the daily management of the observatory and he has taken most of the absolute measurements. Magnetogram scaling is done by Mrs. Dorothy Dale.

Table 1 gives the adopted scale values for D, H and Z, note that the scale value for D ($9.60\gamma/\text{mm}$) is equivalent to 2.4 min. of arc per mm. Tables 2–4 give adopted base-line values. Table 5 gives monthly and annual means for all days and for the 5 international quiet and disturbed days, while Table 6 gives the annual means (all days) from 1952 up to the present year. The following tables give the mean values of D, H and Z for hourly, daily and monthly intervals. In addition are given the mean daily variation for each month, calculated separately for all days (M), 5 quiet days (MQ) and 5 disturbed days (MD). Scaling of the hourly values is centered at half-hours. In the final table is given the three-hour-range indices K and daily sums of K. Universal time (GMT) is used consistently.

From January 1972 lecturer Einar Gjøen will temporarily be responsible for the work connected with the observatory.

TABLE 1
ADOPTED SCALE-VALUES 1969

D γ/mm	H γ/mm	Z γ/mm
9.60	8.85	6.45

TABLE 2
ADOPTED BASE-LINE VALUES
DECLINATION 1969

Interval starting	Interval starting
Jan 1 4°55'0	Nov 1 4°54'.5
Sep 1 54.9	16 54.4
16 54.8	Dec 1 54.3
Oct 1 54.7	16 4°54'.2
16 4°54'.6	

TABLE 3
ADOPTED BASE-LINE VALUES HORIZONTAL INTENSITY 1969

Interval starting	Interval starting	Interval starting
Jan 1 13798 γ	Sep 19 13793 γ	Nov 19 13788 γ
Feb 1 797	Oct 1 792	Dec 1 787
Aug 13 796	13 791	13 786
23 795	Nov 1 790	28 13785 γ
Sep 7 13794 γ	7 13789 γ	

TABLE 4
ADOPTED BASE-LINE VALUES VERTICAL INTENSITY 1969

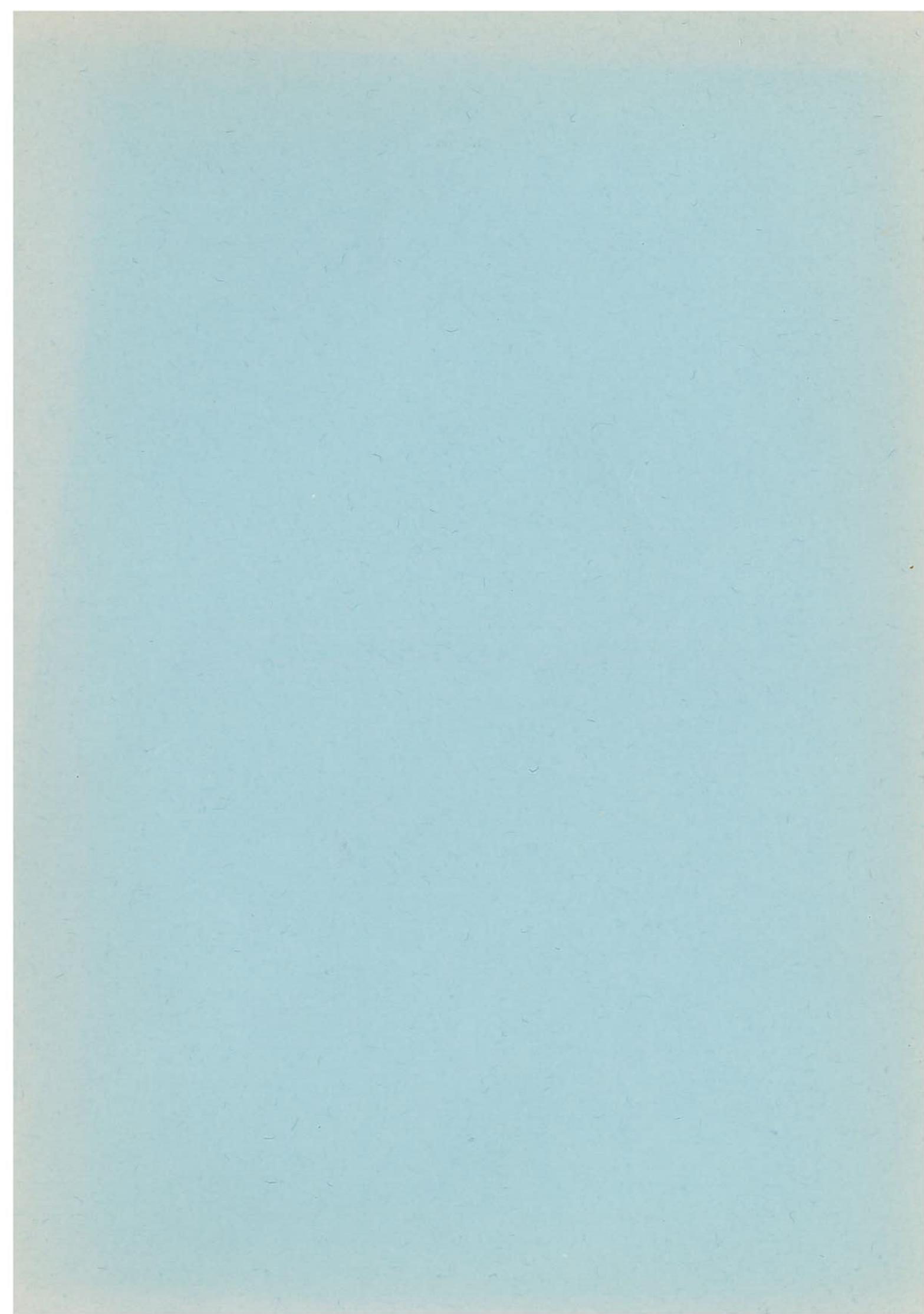
Interval starting	Interval starting	Interval starting	Interval starting
Jan 1 47932 γ	Apr 9 47943 γ	Jul 1 47954 γ	Oct 16 47965 γ
8 933	16 944	8 955	26 966
18 934	24 945	16 956	Nov 8 967
Feb 1 935	May 1 946	24 957	19 968
11 936	8 947	Aug 1 958	28 969
20 937	16 948	7 959	Dec 7 970
Mar 1 938	23 949	19 960	16 971
8 939	Jun 1 950	Sep 1 961	26 47972 γ
16 940	8 951	11 962	
24 941	16 952	23 963	
Apr 1 47942 γ	23 47953 γ	Oct 4 47964 γ	

TABLE 5
MONTHLY AND ANNUAL MEANS

1969	All days			Quiet days			Disturbed days		
	D	H	Z	D	H	Z	D	H	Z
Jan	4°19'.5 W	14089γ	47967γ	4°19'.9 W	14092γ	47966γ	4°18'.5 W	14082γ	47962γ
Feb	18.6	086	974	19.4	092	974	16.7	076	973
Mar	17.8	080	975	18.6	090	976	14.6	042	984
Apr	18.8	093	975	19.1	099	981	18.1	092	975
May	19.1	095	975	20.0	106	976	16.0	053	956
Jun	19.8	108	979	19.5	110	977	20.3	106	974
Jul	19.9	109	975	19.8	111	978	19.5	099	962
Aug	19.7	107	979	19.8	107	983	19.1	105	976
Sep	20.4	100	986	20.8	104	985	17.9	091	988
Oct	18.8	100	996	19.1	103	995	18.1	093	48000
Nov	18.3	102	996	18.8	106	996	17.7	095	47999
Dec	18.5	107	998	19.0	112	998	18.1	103	996
Mean	4°19'.1 W	14098γ	47981γ	4°19'.5 W	14102γ	47982γ	4°17'.9 W	14086γ	47979γ

TABLE 6
ANNUAL MEANS OF THE MAGNETIC ELEMENTS 1952-69

Year	D	H	Z
1952	5°20'.8 W	13871γ	47500γ
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
64	23.4	024	836
65	22.6	043	857
66	21.2	051	883
67	20.1	060	915
68	19.5	080	947
1969	4°19'.1 W	14098γ	47981γ



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.