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EINAR GJØEN and HELGE DALSEIDE

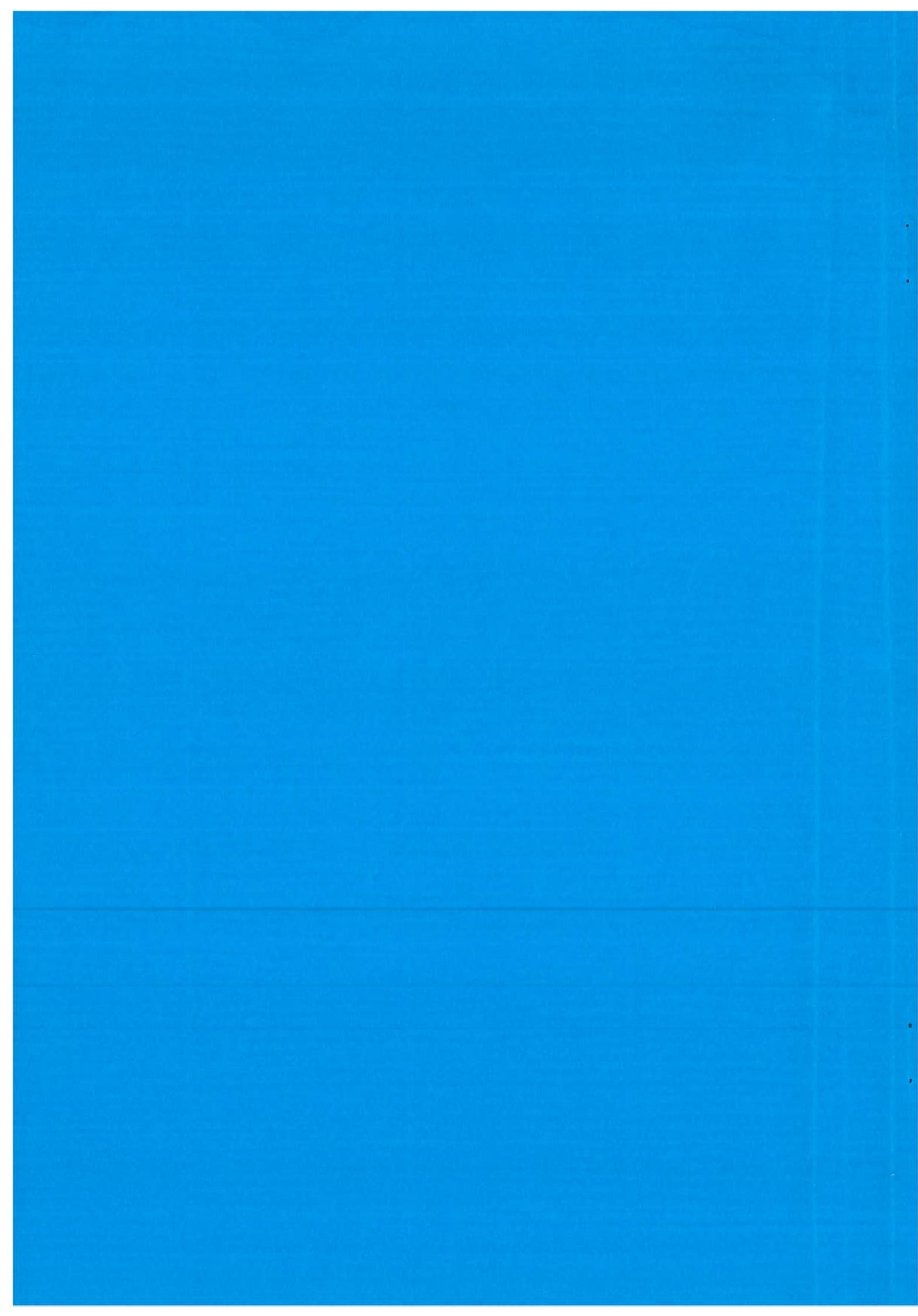
THE MAGNETIC STATION AT DOMBÅS

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

OBSERVATIONS 1980

1982

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Vitenskapsverket
Det Norske Videnskapsrådet
geofysiske institutt
avdeling for geofysikk
magnetismen og elektromagnetismen
og atmosfæren
medlem av Norsk
EINAR GJØEN and HELGE DALSEIDE

THE MAGNETIC STATION AT DOMBÅS

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

OBSERVATIONS 1980

This report gives results from magnetic measurements made at Dombås during 1980. The measurements were made by an automatic magnetic station. The magnetic field was measured every 5 minutes and the results are given in terms of total intensity, horizontal component, vertical component, horizontal declination and horizontal variation. The measurements were taken at the same times as those of the geomagnetic observatory at Trondheim. The measurements were taken at the same times as those of the geomagnetic observatory at Trondheim. The measurements were taken at the same times as those of the geomagnetic observatory at Trondheim. The measurements were taken at the same times as those of the geomagnetic observatory at Trondheim. The measurements were taken at the same times as those of the geomagnetic observatory at Trondheim.

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GENERAL INFORMATION

The Magnetic Station at Dombås is operated by the University of Bergen. All correspondence or inquiries can be sent to:

University of Bergen
Institute of Geophysics
Department of Geomagnetism
Allégt. 70
N-5000 Bergen
Norway

The altitude of the observatory is 660 m above sea level, and its geographical coordinates are: $\phi = 62^{\circ}04'.4$ N, $\lambda = 09^{\circ}07'.0$ E. The dipole coordinates (North geomagnetic pole at $\phi = 78.5^{\circ}$ N, $\lambda = 291^{\circ}$ E) are: $\Phi = 62.3^{\circ}$ N, $\Lambda = 100.1^{\circ}$ 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, an Askania Declinometer and a Geometrics Protonmagnetometer.

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, and 'Observations 1975', (no. 17 in this series).

Mr. Knut Einbu is in charge of the daily management of the observatory and absolute measurements. Magnetogram scaling is done by Mr. Knut Breyholtz.

Table 1 gives the adopted scale values for D, H and Z, note that the scale value for D, 2.4 min. of arc per mm is equivalent to 9.80 γ /mm. 1 γ is equal to 1 nT (10^{-9} Tesla). Tables 2-4 give adopted baseline 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 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.

TABLE 1
ADOPTED SCALE VALUES 1980

D γ/m	H γ/mm	Z γ/mm
2.4	8.85	6.55

TABLE 2
ADOPTED BASE-LINE VALUES
DECLINATION 1980

Interval starting	Interval starting
Jan 1 $4^{\circ}52' .3$ W	Feb 27 $3^{\circ}40' .9$ W
Feb 8 $3^{\circ}42' .1$ W	

TABLE 3
ADOPTED BASE-LINE VALUES
HORIZONTAL INTENSITY 1980

Interval starting	Interval starting
Jan 1 13972γ	Aug 1 13970γ
Jul 1 13971γ	

TABLE 4
ADOPTED BASE-LINE VALUES VERTICAL INTENSITY 1980

Interval starting	Interval starting	Interval starting	Interval starting
Jan 1 48310γ	Apr 1 48319γ	Aug 8 48328γ	Nov 1 48337γ
16 311	16 320	16 329	8 338
Feb 1 312	May 1 321	23 330	16 339
16 313	16 322	Sep 1 331	23 340
23 314	Jun 1 323	8 332	Dec 1 341
Mar 1 315	16 324	16 333	8 342
8 316	Jul 1 325	Oct 1 334	16 343
16 317	16 326	16 335	23 48344γ
23 48318γ	Aug 1 48327γ	23 48336γ	

TABLE 5
MONTHLY AND ANNUAL MEANS

1980	All days			Quiet days			Disturbed days		
	D	H	Z	D	H	Z	D	H	Z
Jan	3°24'.4 W	14229γ	48347γ	3°24'.8 W	14232γ	48344γ	3°23'.3 W	14224γ	48356γ
Feb	23'.7	230	347	24'.3	234	344	22'.1	218	349
Mar	23'.7	234	338	24'.0	237	340	22'.9	223	333
Apr	22'.5	232	341	22'.8	232	346	21'.4	221	340
May	22'.1	239	341	22'.3	234	341	20'.9	233	341
Jun	21'.4	240	345	20'.9	237	348	20'.2	232	339
Jul	21'.0	235	345	21'.2	237	343	20'.7	228	348
Aug	20'.7	233	346	20'.1	230	346	21'.9	239	351
Sep	19'.8	227	348	20'.0	229	347	19'.5	220	354
Oct	18'.4	221	356	18'.5	223	360	18'.6	223	367
Nov	17'.5	221	361	18'.1	225	361	15'.8	213	354
Dec	17'.1	222	358	17'.7	227	359	15'.7	202	347
Mean....	3°21'.0 W	14230γ	48348γ	3°21'.2 W	14231γ	48348γ	3°20'.2 W	14223γ	48348γ

TABLE 6
ANNUAL MEANS OF THE MAGNETIC
ELEMENTS 1952-80

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
69	19'.1	098	981
70	17'.6	115	48019
71	15'.7	135	054
72	13'.4	153	094
73	10'.1	171	132
74	04'.8	186	171
75	3°58'.8	206	210
76	52'.0	217	247
77	45'.3	224	277
78	36'.0	223	314
79	28'.2	231	336
80	3°21'.0 W	14230γ	48348γ

