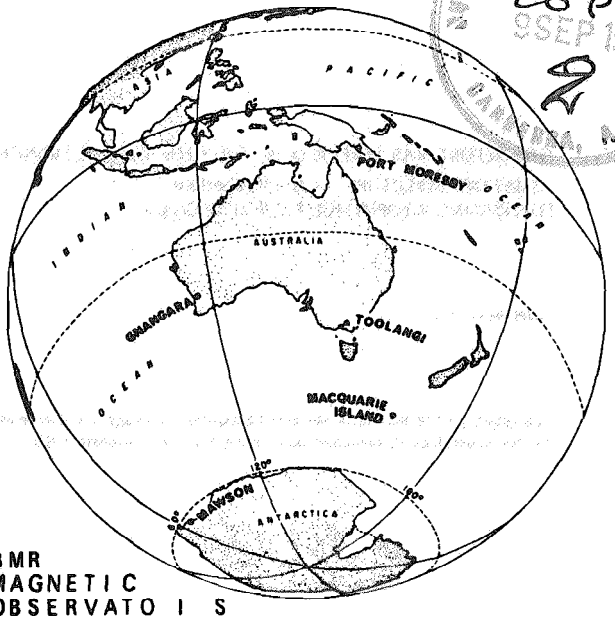
BUREAU OF MINERAL RESOURCES,
GEOLOGY & GEOPHYSICS

GEOPHYSICAL OBSERVATORY REPORT



BMR
MAGNETIC
OBSERVATORIES

Volume 24, No.5

May 1976

DEPARTMENT OF NATIONAL RESOURCES
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SECRETARY: J.S. Scully

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CONTENTS

The terminology used in this report is that accepted by international convention. The units of field intensity, nanotesla (nT), are those of the SI system. All times are in Universal Time. Should further information be required, apply to:

GEOPHYSICAL OBSERVATORY GROUP
BUREAU OF MINERAL RESOURCES
P.O. BOX 378
CANBERRA CITY, A.C.T. 2601

Note: $1nT \equiv 1$ gamma in the C.G.S. system

CONTRIBUTING OBSERVATORIES

OBSERVATORY	OBSERVER IN CHARGE	GEOGRAPHIC		GEOMAGNETIC	
		LAT	LONG	LAT	LONG
GNANGARA	P.J. Gregson	31°47'S	115°57'E	− 43.3°	185.8°
MACQUARIE I	P.R. Gidley	54°30'S	158°57'E	− 61.1°	243.1°
MAWSON	P.J. Wolter	67°36'S	62°53'E	− 73.1°	102.9°
PORT MORESBY	I.B. Everingham	9°25'S	147°09'E	− 18.6°	217.9°
TOOLANGI	E.P. Paull	37°32'S	145°28'E	− 46.7°	220.8°

MAGNETOGRAPHS

OBSERVATORY	TYPE	NOMINAL SCALE VALUES								
		NORMAL			SENSITIVE			RAPID RUN		
		D	H	Z	D	H	Z	D	H	Z
GNANGARA	Eschenhagen	1	2½	5½						
MACQUARIE I	La Cour	2½	24	21				1	5½	6
MAWSON	La Cour	2½	21	22	1	10	10			
PORT MORESBY	La Cour	½	2½	3½						
TOOLANGI	La Cour	1	4½	5						

Scale values are in minutes of arc/mm (D) and nT/mm (H,Z)

MAGNETOMETERS

Absolute data are based on control observations made with QHM's BMZ's Askania Declinometers and Proton Precession Magnetometers
Errors in preliminary values are not likely to exceed ±5 nT or 0.5 minutes

Original page; see also following page.

G N A N G A R A

MAGNETIC K-INDICES - MAY 1976

Range for lower limit of K=9 is 350 nT

Day	K-Indices								K-Sum
01	1	1	1	0	2	3	3	3	14
02	3	2	1	5	6	5	6	6	34
03	6	5	7	4	4	4	3	2	37
04	1	3	4	4	3	5	4	3	27
05	4	4	2	3	2	2	4	2	23
06	1	2	2	3	2	2	2	2	16
07	3	2	2	2	3	3	3	2	20
08	2	2	2	2	2	1	2	2	15
09	2	1	2	1	1	1	1	0	09
10	0	1	1	1	2	5	1	0	11
11	1	1	2	2	2	3	4	3	18
12	2	2	2	2	2	2	1	1	14
13	1	2	2	1	2	1	1	1	11
14	2	1	1	0	1	1	1	1	08
15	1	1	1	0	2	2	1	3	11
16	1	1	1	2	2	1	0	1	09
17	1	1	1	1	1	0	2	1	08
18	1	1	2	1	1	1	1	1	09
19	1	1	1	1	1	2	4	4	15
20	3	4	4	3	2	4	4	3	27
21	3	2	3	3	4	3	3	2	23
22	1	3	3	2	2	4	4	3	22
23	1	1	4	4	5	3	2	2	22
24	1	2	2	2	1	1	2	2	13
25	1	1	1	1	1	1	2	0	08
26	0	1	0	0	0	1	1	0	03
27	0	1	1	1	1	1	2	0	07
28	1	2	2	3	4	3	3	2	20
29	1	2	2	5	2	2	4	2	20
30	2	1	1	3	2	3	2	2	16
31	2	1	1	2	1	3	2	2	14

Page with corrections issued in 1997.

G N A N G A R A

MAGNETIC K-INDICES - MAY 1976

Range for lower limit of K=9 is 350 nT

Day	K-Indices								K-Sum
01	1	1	1	0	2	3	3	3	14
02	3	2	1	5	6	5	6	6	34
03	6	5	6	7	4	4	3	2	37
04	1	3	4	4	3	5	4	3	27
05	4	4	2	3	2	1	4	2	22
06	1	1	2	3	2	2	2	2	15
07	3	2	2	1	3	3	1	2	17
08	2	2	2	2	2	1	2	2	15
09	2	1	2	1	0	1	1	0	08
10	0	1	1	1	2	5	0	0	10
11	1	1	2	2	2	2	4	3	17
12	2	2	2	2	2	2	1	1	14
13	1	2	2	1	2	1	1	1	11
14	1	1	1	0	1	1	1	1	07
15	1	1	1	0	2	2	1	3	11
16	1	1	1	2	2	1	0	1	09
17	1	1	1	1	0	0	2	1	07
18	1	1	1	1	1	1	1	1	08
19	1	1	1	1	1	2	4	4	15
20	3	4	4	3	2	4	4	3	27
21	3	2	3	3	4	3	3	2	23
22	1	3	3	2	1	4	4	3	21
23	1	1	4	4	5	3	2	2	22
24	1	2	2	2	1	1	2	2	13
25	1	1	1	1	1	1	2	0	08
26	1	1	0	0	0	1	1	0	04
27	0	1	1	1	1	1	2	0	07
28	1	2	2	3	4	3	3	2	20
29	1	2	2	5	2	2	4	2	20
30	2	1	1	3	2	3	2	2	16
31	2	1	1	2	1	3	2	2	14

M A C Q U A R I E I S L A N D

MAGNETIC K-INDICES - MAY 1976

Range for lower limit of K=9 is 1500 nT

Day	K-Indices								K-Sum
01	2	1	2	1	3	2	1	2	14
02	3	3	2	7	7	3	6	5	36
03	6	6	8	8	6	5	4	2	45
04	2	3	5	5	5	6	4	2	32
05	3	3	1	5	3	1	1	1	18
06	2	2	4	5	3	2	1	1	20
07	2	2	2	3	3	3	1	1	17
08	2	1	2	3	3	0	0	1	12
09	1	1	1	0	1	0	0	0	04
10	0	1	1	1	2	3	0	0	08
11	2	1	2	5	2	2	2	2	18
12	2	1	2	4	3	1	0	1	14
13	1	1	1	1	2	0	0	0	06
14	1	0	1	0	1	1	0	0	04
15	0	0	0	0	2	1	0	2	05
16	1	1	0	3	0	0	0	0	05
17	0	0	0	1	1	0	0	0	02
18	0	0	0	0	1	0	0	0	01
19	1	0	0	1	1	1	2	2	08
20	3	4	5	5	4	4	5	2	32
21	2	1	4	4	5	3	1	1	21
22	1	1	4	1	4	2	1	2	16
23	1	0	4	5	6	4	1	0	21
24	1	1	1	1	1	0	0	1	06
25	1	1	1	3	2	2	2	0	12
26	1	1	0	0	1	1	0	0	04
27	1	1	0	2	2	0	0	0	06
28	1	2	4	6	6	5	3	2	29
29	1	1	2	7	4	4	4	4	27
30	3	2	2	6	4	3	3	2	25
31	1	2	2	5	1	3	1	1	16

M A W S O N

MAGNETIC K-INDICES - MAY 1976

Range for lower limit of K=9 is 1500 nT

Day	K-Indices								K-Sum
01	5	3	3	2	3	3	4	6	29
02	5	5	4	4	6	5	7	9	45
03	9	8	7	7	5	4	6	5	51
04	4	5	5	4	4	7	6	5	40
05	5	6	5	4	4	3	5	5	37
06	4	4	3	4	3	3	5	5	31
07	6	4	4	2	2	2	3	5	28
08	5	3	4	4	2	2	3	3	26
09	3	4	3	1	1	1	3	3	19
10	2	3	2	2	2	4	1	4	20
11	5	4	3	3	3	3	5	5	31
12	3	3	3	4	2	2	3	5	25
13	3	3	2	1	2	1	2	4	18
14	3	2	2	0	2	1	2	2	14
15	3	3	1	0	2	1	3	5	18
16	3	5	2	2	2	2	1	3	20
17	1	2	1	1	2	1	4	5	17
18	1	0	0	0	1	1	0	2	05
19	1	1	1	1	1	2	7	5	19
20	4	6	6	4	3	5	6	5	39
21	5	4	4	4	3	2	4	5	31
22	3	4	4	4	2	3	7	6	33
23	3	3	5	5	4	3	6	4	33
24	3	4	3	2	2	1	2	4	21
25	4	3	4	3	3	3	3	2	25
26	4	5	2	1	1	2	4	4	23
27	2	3	3	2	1	2	4	5	22
28	5	5	4	4	3	4	4	5	34
29	4	6	3	4	2	2	6	7	34
30	7	5	4	5	4	3	6	6	40
31	5	5	4	4	3	3	3	6	33

P O R T M O R E S B Y

MAGNETIC K-INDICES - MAY 1976

Range for lower limit of K=9 is 300 nT

Day	K-Indices								K-Sum
01	3	3	3	2	3	2	2	2	20
02	5	4	3	4	5	2	4	5	32
03	5	6	5	7	5	3	2	2	35
04	2	4	4	3	2	2	3	3	23
05	4	4	2	3	3	1	3	1	21
06	2	3	2	3	2	1	1	2	16
07	3	2	2	2	2	2	2	3	18
08	2	3	2	2	3	2	1	2	17
09	2	2	2	1	0	1	1	1	10
10	1	1	2	1	3	3	1	0	12
11	1	2	3	3	2	3	3	2	19
12	3	2	2	2	2	2	1	2	16
13	1	3	2	1	3	2	1	1	14
14	2	1	2	1	1	1	1	2	11
15	2	2	1	1	2	2	1	3	14
16	1	2	2	2	2	1	1	1	12
17	1	1	1	1	0	0	0	1	05
18	2	1	2	1	1	1	0	1	09
19	1	1	1	1	2	3	3	3	15
20	3	4	4	4	2	2	2	2	23
21	3	2	2	3	3	3	2	2	20
22	3	2	3	2	3	3	2	2	20
23	1	2	4	4	3	2	2	1	19
24	1	2	2	2	1	1	1	2	12
25	3	3	2	2	2	2	2	1	17
26	2	2	2	2	2	2	1	2	15
27	1	2	2	1	2	1	1	1	11
28	1	3	4	4	4	3	2	1	22
29	1	3	2	4	3	2	3	2	20
30	3	3	3	3	3	2	3	2	22
31	2	1	2	3	2	2	1	2	15

T O O L A N G I

MAGNETIC K-INDICES - MAY 1976

Range for lower limit of K=9 is 500 nT

Day	K-Indices								K-Sum
01	2	1	2	1	2	3	1	3	15
02	4	4	2	5	5	3	5	6	34
03	6	5	6	7	4	3	3	3	37
04	1	3	4	4	3	4	4	2	25
05	4	4	2	3	2	0	3	1	19
06	1	2	3	3	2	1	1	2	15
07	3	2	1	1	2	3	2	1	15
08	2	2	2	1	2	1	1	0	11
09	1	1	1	0	0	0	0	0	03
10	0	2	1	2	2	4	0	0	11
11	1	1	2	3	2	2	3	3	17
12	2	2	2	2	2	1	0	1	12
13	1	2	2	1	2	2	1	0	11
14	1	1	0	0	1	0	0	0	03
15	0	1	0	0	2	2	0	3	08
16	1	1	1	2	1	0	0	0	06
17	0	1	1	2	0	0	1	1	06
18	0	1	0	0	1	0	0	0	02
19	1	1	1	1	1	2	3	3	13
20	2	4	3	3	2	3	3	2	22
21	2	1	3	3	3	2	2	2	18
22	2	2	3	2	3	3	3	3	21
23	1	1	4	4	4	2	2	2	20
24	2	2	2	2	1	1	0	2	12
25	2	2	2	2	2	2	2	0	14
26	2	1	0	1	1	1	1	1	08
27	0	2	1	2	2	1	1	0	09
28	1	3	3	4	4	3	2	1	21
29	2	3	2	4	3	3	5	4	26
30	3	3	3	4	3	3	3	2	24
31	1	2	3	3	-	3	1	2	--

MAY 1976

PRINCIPAL MAGNETIC STORMS

Observatory	Storm - time					Sudden commencement				Degree of activity	Maximal activity on K - scale 0 to 9			Ranges		
	Begin			End		Type	Amplitudes				Day	3 - hour period	K	D	H	Z
	d	h	m	d	h		D	H	Z					′	nT	nT
GNANGARA	02	03	..	05	09	..					03	(4)	7	36	160	200
	19	17	..	24	00	..					23	(5)	5	14	70	80
PORT MORESBY	02	00	..	04	12	..					03	(4)	7	6	190	60
TOOLANGI	02	18	29	03	22	ssc	+3.5	+14	+3		03	(4)	7	44	270	80

MAY 1976

PRELIMINARY MONTHLY MEAN VALUES

Based on selected quiet days

OBSERVATORY	H nT	D ° ′	Z nT
GNANGARA	23569	03 12.6W	-53526
MACQUARIE I.	12822	27 50.5E	-63899
MAWSON	18418	62 37.2W	-47172
PORT MORESBY	36056	06 20.7E	-23440
TOOLANGI	22176	10 52.1E	-56309

SUDDEN COMMENCEMENTS AND OTHER PHENOMENA

OBSERVATORY	DAY	TIME	TYPE	SENSE OF MOVEMENT H	D	Z
GNANGARA	02	1828	ssc B	+	+	
PORT MORESBY			NIL			
TOOLANGI	02	1829	ssc B	+	+	+

ERRATUM

Mawson Preliminary Monthly Mean for April 1976 should be -47184 not -47192 as printed.