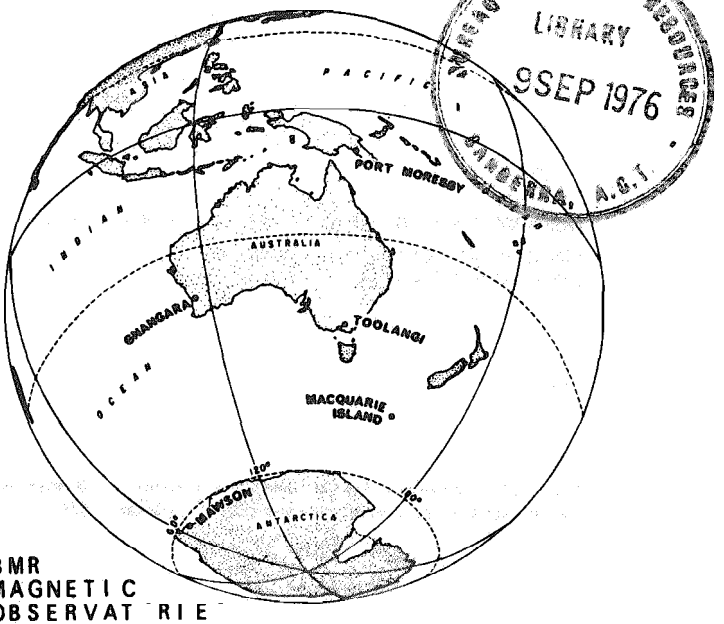
BUREAU OF MINERAL RESOURCES,
GEOLOGY & GEOPHYSICS

GEOPHYSICAL OBSERVATORY REPORT



BMR
MAGNETIC
OBSERVATORIE

Volume 24, No.6

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DEPARTMENT OF NATIONAL RESOURCES
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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 ≡ 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

G N A N G A R A

MAGNETIC K-INDICES - JUNE 1976

Range for lower limit of K=9 is 350 nT

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

Page with corrections issued in 1977.

G N A N G A R A

MAGNETIC K-INDICES - JUNE 1976

Range for lower limit of K=9 is 350 nT

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

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

MAGNETIC K-INDICES - JUNE 1976

Range for lower limit of K=9 is 1500 nT

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

M A W S O N

MAGNETIC K-INDICES - JUNE 1976

Range for lower limit of K=9 is 1500 nT

Day	K-Indices								K-Sum
01	2	3	3	3	2	3	6	5	27
02	4	4	4	3	1	2	4	5	27
03	5	4	2	2	3	3	6	7	32
04	3	6	5	4	3	2	3	4	30
05	5	5	6	4	4	3	4	6	37
06	4	3	5	3	3	4	3	6	31
07	5	4	5	4	3	3	2	6	32
08	5	5	4	5	3	3	5	4	34
09	3	2	3	2	2	1	2	1	16
10	2	3	2	1	2	2	2	5	19
11	7	7	6	4	5	4	3	6	42
12	3	3	5	4	3	3	2	1	24
13	1	3	3	2	2	1	0	5	17
14	2	3	2	1	0	0	1	3	12
15	2	0	1	0	0	0	3	6	12
16	2	4	3	2	1	1	1	5	19
17	4	3	3	5	4	3	4	5	31
18	6	5	5	5	4	3	5	5	39
19	2	3	2	4	3	3	3	3	23
20	5	2	2	4	3	2	3	4	25
21	1	1	1	1	1	1	2	2	10
22	2	1	1	0	2	1	2	2	11
23	2	3	2	0	1	1	2	4	15
24	3	3	3	1	0	4	5	6	25
25	6	5	5	4	4	3	6	5	38
26	3	3	2	1	1	1	7	6	24
27	3	4	3	3	2	2	4	5	26
28	5	3	3	3	2	1	6	6	29
29	4	4	2	2	1	1	4	3	21
30	2	4	6	6	5	4	3	6	36

P O R T M O R E S B Y

MAGNETIC K-INDICES - JUNE 1976

Range for lower limit of K=9 is 300 nT

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

T O O L A N G I

MAGNETIC K-INDICES - JUNE 1976

Range for lower limit of K=9 is 500 nT

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

JUNE 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	Z							
	d	h	m	d	h		′	nT	nT					′	nT	nT
GNANGARA	03	18	..	05	21	..					05	(5)	5	13	50	60
	11	00	..	12	18	..					11	(1,4,5)	5	19	90	100
	30	03	..	01	18	..					30	(4)	6	16	75	100
PORT MORESBY	30	02	51	01	18	ssc	..	+3	+3		30	(4)	5	5	110	60
TOOLANGI	10	20	..	11	18	..					11	(4,5)	5	19	110	50

PRELIMINARY MONTHLY MEAN VALUES

Based on selected quiet days

OBSERVATORY	H nT	D ° ′	Z nT
GNANGARA	23568	03 12.3W	-53527
MACQUARIE I.	12824	27 51.3E	-63907
MAWSON	18420	62 37.2W	-47161
PORT MORESBY	36058	06 20.8E	-23438
TOOLANGI	22176	10 52.4E	-56306

SUDDEN COMMENCEMENTS AND OTHER PHENOMENA

OBSERVATORY	DAY	TIME	TYPE	SENSE OF MOVEMENT H	D	Z
GNANGARA	24	1633	ssc B	+	+	+
PORT MORESBY			NIL			
TOOLANGI	24	1633	ssc B	+	+	+
	30	1039	bp A	+	-	+

R74/2008 (12)