May + June '64

Geological Survey Office,
Department of Mines,
Union of South Africa.

SEISM LOGICAL BULLETIN.

The data herewith give the results from a network of seismographs intended particularly for the study of earthquakes occuring in or near South Africa. This bulletin, however, is prepared regularly and will be sent to interested organisations on request.

Station	Grahamstown (GRH)	Pietermaritzburg (PIE)	Kimberley (KIM)
Lat:	33°13.6'S	29°37.2'S	28°45.1'S
Long:	26°34.5'E	30°23.8'E	24°46.8'E
Lithologic foundation.	Dwyka Shale	Soft Ecca Shale	Dolerite boulders embedded in decayed dolorite
Height:	558 m.	656 m.	1321 m.
Instument:	Benioff S.P. vertical with short and long period recorders	Benioff S.P. vertival	Benioff S.P. vertical
Seismo. Officer:	Professor of Physics	Professor of Physics	Rev. Br. T.N. Purcell
Institution:	Rhodes University	Natal University	Christian Brothers College

Notes: "Earth tremors" originating in the mining district of the Witwatersrand are recorded several times daily by the Pretoria station, and less frequently by others. These are not dealt with in this bulletin.

Data are occasionally reported herein by courtesy of the Union Observatory, Johannesburg, which operates a 200kg. Wiechert Horizontal seismograph. This station is called J, and is at 26°10.9'S, 28°04.5'E, height 1806 metres.

All times given are G.M.T.

The supervision of this network and bulletin is at present in the hands of the undersigned, to whom all inquiries should be addressed.

Address:

Bernard Price Institute of Geophysical Research,
University of the Witwatersrand,
Johannesburg.
South Africa.

H.O. Oliver.
Seismological Officer.

May, 1964.

Date	Station	Phase	h. G.	m. M.	s. T.	Arc Dist	C/R	Remarks.
2	Pic	e	11	34	00			
2	Kin	iPKP	16	30	16	135°	C	USCGS H=16 11 00.2 45.5N,150.3E Kurile Is. h=35Km Mag 5.7
2	Pic	e	16	32	30			
2	Grh	e	17	18	(29)			
4	Kin	e	12	23	12			
		i		24	36		C	
4	Kin	e	17	09	53			USCGS H=17 05 20 55.8S, 4.4W Bouvet Is. region h=33Km mag5.4
		i		11	31			
	Pic	e			36			
5	Kin	iP	11	19	33	34°		USCGS H=11 12 52 55.8S, 4.3W Bouvet Is. region h=33Km
5	Pic	e	11	29	21			
6	Pic	e	09	07	26			
6	Kim	i	15	46	32			
6	Pic	e	16	46	(16)			
7	Grh	i	05	50	(39)			USCGS H=05 45 29.5 4.0S,34.9E
	Pic	iP		51	01	26°	R	Tanganyika h=33Km mag6½
		i		55	38			
	Kin	i		51	04	28°	C	
7	Grh	(e)i	07	17	(13)			
	Kin	i			13		C	
7	Pic	e	20	28	(17)			
7	Grh	e	21	14	-			
8	Kin	i	16	41	43			
		e		42	(17)			
8	Kin	iP	20	49	06	82°		USCGS H=20 36 54.1 24.2S,69.3E Northern Chile h=78Km Mag4.9
8	Kin	i	21	54	20			USCGS H=21 45 47 1.7N,126.5E Molucca Passage h=33Km
9	Kin	e	00	01	38			
		i			47			
	Pic	e		03	(17)			
9	Pic	ePKP$_1$	02	22	26	154°		USCGS H=02 02 28.8 52.2N, 169.6W Andreanhof Is. h=25Km Mag5.1
		i			38			
9	~~Kin~~ KIM	i P	12	36	16			
		i			27			
		i			57			
	Pic PIE	e P	12	36	25			
		i			31			
9	Kin	(e)iPKP	18	35	13	123°		USCGS H=18 16 17.5 13.7S,166.6E New Hebrides Is. h=41Km Mag5.0
9	Kin	iPKP	21	25	52	120°		USCGS H=21 07 41.6 9.2S,156.7E Solomon Is. region h=26Km Mag5.4
10	Kin	i	11	51	08			
		i			19			
		i			50			
		i		52	06			
11	Kin	e	12	43	05			
		i		45	33			
	Pic	e		43	42			
12	Pic	ePKP$_1$	18	35	(48)	153°		USCGS H=18 16 41.9 56.6N,152.4W Alaska Aftershock h=10Km Mag5½
12	Grh	e	19	40	(30)			
13	Pic	e(i)	06	35	(48)			
16	Kin	iP	08	50	11	78°		USCGS H=08 38 54.0 36.3N,71.5E Hindu Kush h=122Km Mag5.3
16	Kin	iPKP$_1$	15	04	43	154°		USCGS H=14 44 54 57.6N,151.0W Alaska Aftershock h=33Km Mag5.4
16	Kin KIM	eP	19	04	08			
17	Kin	iP	19	38	59	85°		USCGS H=19 26 20.6 35.2N,35.9W North Atlantic Ocean h=33Km mag6½
17	Pic	e	19	50	(19)			
		i	20	10	(19)			
18	Grh	e	13	59	(20)			
18	Kin	iPKP	14	31	12	127°		USCGS H=14 12 10.1 21.2S, 174.5W Tonga Is. region h=33Km Mag4½
18	Grh	e	18	26	44			
19	Kin	iPKP$_1$	15	57	29	153°	R	USCGS H=15 37 35.9 57.0N,152.8W Alaska Aftershock h=25Km Mag4.9

May, 1964 Cont.

Date	Station	Phase	h. G.	m. M.	s. T.	Arc Dist	C/R	Remarks.
19	Pic	e(i)	23	22	(19)			
19	Grh	e	23	54	(49)			
20	Kim	$iPKP_1$	05	52	05	152°	R	USCGS H=05 32 13.7 58.0N,149.6W Alaska Aftershock h=20Km Mag4.9
21	Kim	$ePKP_1$	15	55	44	151°		USCGS H=15 36 01.5 59.0N,153.5W Alaska Aftershock h=15Km Mag 6.0
23	Kim	e	20	16	29			
		i			38			
		i			47			
		i		17	19			
25	Kim	e	15	54	06			
25	Kim	iP	19	54	31	63°		USCGS H=19 44 07 9.1S,88.9E Indian Ocean h=33Km Mag5.5
26	Grh	i	11	06	03			USCGS H=10 59 12.3 56.2S,27.8W
	Pic	iP		07	42	48°	R	Sandwich Is. h=120Km Mag7½
27	Kim	iP	01	04	53	45°	C	USCGS H=00 56 42.556.1S,27.6W
	Pic	iP		05	(17)	48°	R	Sandwich Is. h=105Km Mag5.6
27	Kim	(e)iP	06	39	09	44°	R	USCGS H=06 30 57.7 56.2S,27.4W Sandwich Is. h=116Km Mag5.8
28	Kim	i	13	42	34		R	
28	Kim	$iPKP_1$	16	37	53	153°	R	USCGS H=16 18 04.2 58.3N,150.6W Alaska Aftershock h=25Km Mag5.4
30	Kim	i	13	39	15			
30	Pic	e	14	50	(18)			
31	Pic	i	00	01	43			
31	Grh	e	00	59	02			
	Pic	i			40		R	
	Kim	(e)i			44			

A.A.ATTRIDGE
3/2/65.

Johannesburg. Obs

Received 25 1.

South Africa

November, 1964.

Date	Station	Phase	h. G.	m. M.	s. T.	Arc Dist	C/R	Remarks.
1	Kim	i	07	06	51		C	
2	Kim	e	07	01	53			
		i		02	36			
2	Kim	iP	07	04	27	98°	C	USCGS H=06 50 58.2 4.1S, 76.9W N. Peru Mag 6¾ h=91Km
7	Pie	e	19	11	(11)			
8	Pie	e	03	07	(41)			
10	Kim	iP	15	58	33	69°	R	USCGS H=15 47 49.3 36.2N, 49.1E Western Iran Mag 5.3 h28Km
13	Kim	e	15	56	17			
16	Pie	eP	22	53	40	89°		USCGS H=22 40 44 1.0N, 118.8E Borneo Mag 6.7 h33Km
17	Pie	e(i)P	08	30	19	114°		USCGS H=08 15 39.3 5.7S, 150.7E
	Kim	iPKP		34	24	119°		New Britain region Mag7¾ h45Km
	Grh	e(i)PP		35	(11)	116°		
17	Kim	i	08	44	46			
	Pie	e		45	05			
18	Kim	i	14	54	23			
18	Pie	e	15	03	(08)			
18	Kim	ePKP	22	40	07	119°		USCGS H=22 21 01.9 20.2S, 174.1W
	Pie	e	23	22	(38)			Tonga Is. Mag 5.8 h33Km
19	Pie	e	23	50	08			USCGS H=23 35 06 6.0S, 150.8E
		i		54	45			New Britain region Mag 6¾ h=3Km
	Kim	i		53	58			
20	Kim	i	00	04	19			
	Grh	e(i)			(21)			
23	Pie	i	20	07	03		R	
	Kim	e		08	32			
		i			(40)			
24	Pie	iP	10	53	06	75°	C	USCGS H=10 41 33.5 6.8S, 107.4E
	Kim	iP			32	80°		Java Mag 6.0 h125Km
24	Pie	e(i)P	12	54	37	100°		USCGS H=12 40 51.4 13.1N, 124.7E
	Kim	iPP		59	19	105°		Luzon Philippine Is. Mag6.1 h=5Km.
28	Kim	iP	16	53	35	92°	R	USCGS H=16 41 33.4 7.7S, 71.2W Western Brazil Mag 5.4 h626Km
28	Kim	iP	17	01	31	92°	R	USCGS H=16 49 30.3 8.0S, 71.4W Western Brazil Mag 5.6 h655Km
29	Grh	eP	12	39	28	103°		USCGS H=12 26 29.6 4.6N, 77.6W
		i	13	00	-			West Coast of Columbia Mag 4.3 h44Km
30	Kim	eP	12	35	57	74°		USCGS H=12 24 09 6.2N, 93.7E Nicobar Is region h33Km
30	Pie	e(i)	12	38	36			
	Kim	(e)i		39	23			

A.A.Attridge
31st May, 1965.

December, 1964.

Date	Station	Phase	h. m. s. G. M. T.	Arc Dist	C/R	Remarks.
1	Kim	e	23 42 00			
		i	45 51		(R)	
1	Pic	e	23 48 07			
		i	28			
2	Kim	ePKP$_1$	13 38 06	155°		USCGS H=13 18 29 53.8N,165.4W
		i	40		(R)	Fox Is. Mag 5.0 h=35Km
3	Kim	iP	03 57 40	42°		USCGS H=03 50 01.2 15.0S,66.8E
	Grh	eP	(48)	41½°		Mid - Indian Rise Mag 6.1 h46Km
	Pic	ePP	58 (06)	37°		
		i	04 07 (36)			
7	Kim	i	09 17 27		R	
7	Kim	i	09 27 45			
7	Pic	e	09 52 (06)			
8	Kim	e	10 14 25			
9	Kim	iP	13 46 29	74°	R	USCGS H=13 35 42.4 27.5S,63.2W
	Pic	eP	52	80°		Santiago del Estra Province
						Argentino Mag 6 h586Km
10	Kim	i	13 23 12			
10	Kim	iP	15 30 06	126°	C	USCGS H=15 11 05.5 40.4N,138.9E
	Pic	ePP	31 (35)	124°		Eastern Sea of Japan Mag 7
						h=33Km
12	Kim	e	10 31 22			
		i	26			
13	Kim	iPKP$_1$	00 52 56	146°		USCGS H=00 33 24.7 64.9N,165.7W
						Alaska Mag 6 h=15Km
13	Pic	i	02 05 (16)			
14	Grh	e(i)	02 04 07			USCGS H=01 59 05.6 54.3S,2.4W
	Kim	iP	05 26	33°	R	South Atlantic Ridge h=33Km
15	Kim	iPKP	12 32 06	120°		USCGS H=12 13 25.8 14.7N,91.7W
						Guatamala Mag5.4 h=118Km
15	Kim	i	13 34 13			
18	Kim	i	00 04 36		C	
18	Pic	i	00 10 08		C	
21	Kim	e	14 09 14			
		i	20			
21	Pic	e(i)	14 15 02			
21	Kim	iPKP$_2$	18 51 28	147°	R	USCGS H=18 32 03 63.1N,50.3W
						Central Alaska Mag 4.8 h111Km
22	Kim	iP	00 36 50	90½°	C	USCGS H=00 24 48.7 9.5S, 71.3W
						Peru-Brazil border region Mag5.3
						h=614Km
22	Kim	eP	04 47 05	64°		USCGS H=04 36 34.7 28.2N,57.0E
		i	10			Southern Iran Mag5.5 h42Km
	Pic	eP	49 (02)	62°		
22	Grh	e	05 10 (27)			
22	Kim	eP	08 14 54	101°		USCGS H=08 01 12.6 18.4N, 68.8W
						Mona Passage Mag6.0 h115Km
22	Kim	e	21 13 28			
		i	14 23			
22	Kim	iPKP$_1$	21 54 10	153°		USCGS H=21 34 21.1 51.4N,177.9W
						Andreanhof Is. Mag 4.6 h65Km
22	Pic	e	22 08 (02)			
23	Kim	iP	05 55 08	46°		USCGS H=05 46 45 59.4S,26.9W
						South Sandwich Is. region Mag6.0
						h=23Km
24	Kim	iPPP	02 20 21	64°		USCGS H=02 06 05 28.1N,57.4E
						Southern Iran h33Km
24	Kim	iPKP	19 04 29	120°	C	USCGS H=18 45 45.5 4.4S,153.3E
						New Ireland region Mag 6.1
						h93Km
24	Kim	e	23 50 19			
		i	38		R	

December, 1964 Cont.

Date	Station	Phase	h. G.	m. M.	s. T.	Arc Dist	C/R	Remarks.
25	Kim	iP	09	00	59	85°	R	USCGS H=08 48 37.7 18.3S,69.0W Northen Chile. Mag5.1 h117Km
25	Kim	i	18	28	48		R	
26	Kim	iPKP	14	49	28	140°	R	USCGS H=14 30 29.1 51.8S,156.8E Kamchatka. Mag5.7 h136Km
26	Kim	i	14	53	30		R	
26	Kim	iPKP	16	34	04	124°	R	USCGS H=16 16 11 22.1S,179.6W South of Fiji Is. Mag6½ h611Km
28	Pie	e	16	39	30			
28	Kim	i	21	14	09		R	
29	Kim	$iPKP_2$	06	59	02	154°		USCGS H=06 39 08 51.5N,174.8W Andreanhof Is. Mag5.3 h33Km
29	Kim	$iPKP_2$	10	29	44	154°	R	USCGS H=10 09 42.4 51.8N,175.1W Andreanhof Is. Mag4.4 h76Km
30	Pie	e	13	57	34			
31	Kim	iP	16	28	30	65°	C	USCGS H=16 18 01.7 35.8N,25.6E Crete. Mag5.1 h86Km

A.A.ATKINSON.

31st May, 1965.