

DEPARTMENT OF SCIENTIFIC & INDUSTRIAL RESEARCH

EARTHQUAKE REPORTS - NEW ZEALAND & FIJI

REGISTER FROM DOMINION OBSERVATORY, WELLINGTON NEW ZEALAND, FOR 1929, OCTOBER, NOVEMBER, AND DECEMBER.



(Tables used: Zoppritz-Turner Tables for all waves, except S_cP_cS or (S), which is from Gutenberg's Table in I.S.S. 1923 January, February, March).

LATITUDE: $41^{\circ} 17' S$. LONGITUDE: $174^{\circ} 46' E$.
HEIGHT ABOVE SEA-LEVEL - 401.5.ft.

INSTRUMENTS

- (a) Milne Horizontal Seismograph No.20: E-W Component: magnification, 5-6: period, $T = 18.8$ seconds: undamped.
- (b) Milne-Shaw Horizontal Seismograph No.1): N-S Component; magnification 150; period, $T = 10.0$ seconds: magnetic damping, 20; l. Sensitivity 20.4. Constants determined 1929 October 2nd.
- (c) Milne-Shaw Horizontal Seismograph No.36; E-W Component; magnification 150; period. $T = 10.2$ seconds; magnetic damping, 20: l. Sensitivity 23.7. Constants determined 1929 October 1st.

Time is Greenwich Mean Time-0 h. or 24h. = Greenwich midnight

DIRECTOR - C.E. ADAMS.

NOTE: In this report the amplitudes of the majority of local shocks are expressed in milli-metres, measured directly from the Seismograms. Other amplitudes are in microns.

DATE 1929	DIREC- TION	PHASE	TIME h m s	AMPLI- TUDE	PERIOD S	DISTANCE deg.	REMARKS
Oct.1	E-W	O	0 25 12	m.m.		1.5	R-F 4 at Nelson and Westpo
		iP	25 35				
		iS	25 54	1.1			
	N-S	iS	0 25 51	1.8			
Oct.2	E-W	--	11 10				Slight tremors
Oct.3	(E-W)	--	3 10				Slight tremors
	(N-S)						
Oct.4	E-W	i	18 10 56	1.0			R-F 3 at Nelson.
	N-S	i	18 10 53				
Oct.5	E-W	O	2 41 9			1.8	R-F 3 at Takaka
		iP	41 37				
		iS	42 0	3.0			
	N-S	iS	2 41 56	3.7			
Oct.5	E-W		3				Slight tremors
Oct.5	E-W	i	17 24 23	s	17		
		L	38				
	N-S	i	17 19 31				
		L	44	s	18		
Oct.6	E-W	O	7 51 20			67.7	
		iP	8 2 22				
		iS	11 18				

DATE	DIRECTION	PHASE	TIME			AMPLITUDE	PERIOD	DISTANCE	REMARKS	
			h	m	s					
Oct.6	E-W	SR ₂	18	48		m.m.				
		iL	24							
		M	27	35		s	19			
	N-S	O	7	51	20			67.7		
		iP	8	2	22					
		S		11	18					
L			23							
		M	29	37		s	19			
Oct.6	E-W	O	11	37	53			0.7		
		iP		38	4					
		iS		38	13		1.0			
	N-S	iS	11	38	13		<u>1.0</u>			
							<u>μ</u>			
Oct.6	E-W	O	13	18	38			10.7	Zi-ka-wei Δ = 83° ⁵	
		eP		21	18				Suva Δ = 16°	
		iS		23	26				Epicentre	
		iL		24	10				32° S, 175° W	
		M ₁		25	48	28	14			
		M ₂		29	12	22	12			
	N-S	O	13	18	43			11.0		
		iP		21	27					
		iS		23	37					
		iL		24						
		M ₁		29	28	20	11			
		M ₂		32	30	15	9			
Oct.7	E-W	o	15	9	47			18.0	Suva Δ = 10° ⁵	
		P		13	54					
		iS		17	27					
		iL		18	17					
		M		18	32	73	24			
	N-S	iPR?	15	16	24					
		S		17	42					
		L		19	8					
		M		20	36	38	18			
Oct.8	E-W	O	17	14	58			20.3	Suva Δ = 12°	
		iP		19	43				Manila Δ = 78°	
		i		22	14				Epicentre 23S.171W.	
		iS		23	28					
		SR		24	13					
		M		24	23	154	16			
		iL		25						
		M ₁		25	31	134	14			
		M ₂		27	8	120	13			
		M ₃		31	58	88	10			
		M ₄		38	22	160	16			
		N-S	O	17	15	1			20.2	
			iP		19	44				
	i			22	14					
	iS			23	28					
	iSR			24	12					
	M			24	26	57	13			
	iL			25						
	E-W	M ₁		26	5	158	19			
M ₂			26	57	105	15				
M ₃			29	28	136	14				
Oct.8	E-W	O	23	47	23			1.55		
		iP		47	47					
		iS		48	7					
N-S	iS	23	48	7						



DATE	DIRECTION	PHASE	TIME			AMPLITUDE	PERIOD S	DISTANCE deg.	REMARKS
			h	m	s				
Oct.9	E-W	i	18	47	35				
	N-S	i	18	47	59				
Oct.10	E-W	O	10	50	7		20.3		
		iP		54	52				
		iS		58	37				
		iL	11	0	7				
		M ₁		1	28	s	14		
		M ₂		5	6	10	11		
	N-S		10	55	26				
		iS		58	42				
		iL	11	0					
		M		4	24	19	12		
Oct.10	E-W		14	14					
Oct.10	N-S		14	16					
Oct.10	N-S		15					Slight tremors	
Oct.12	E-W	i	20	31	40			Kahurangi Pt.R-F 4	
Oct.14	E-W	i	6	44	25			Takaka R-F 5	
	N-S	i	0	44	28				
Oct.14	E-W	L	3	56		s	14		
	N-S	L	3	56		s	13		
Oct.14	E-W		11					Tremors	
	N-S		11	10				Slight tremors	
Oct.15	E-W	i	7	49	25				
	N-S	L	7	52	21				
Oct.15	E-W	L	8	19		s	18		
	N-S	i	8	18	25				
		L		20	55	s	16		
Oct.15	E-W		10+					Slight tremors	
	N-S		10	5				Slight tremors	
Oct.16	E-W	i	6	0	16			Westport, R-F 1.	
	N-S	i	6	0	22				
Oct.16	E-W		18	32					
	N-S		18	35				Tremors.	
Oct.16	E-W	L	21	30+		s	19		
	N-S	L	22	7	28	s	19		
Oct.17	E-W	L	2	11		s	19		
	N-S		2	15		<u>m.m.</u>		Tremors	
Oct.18	E-W	O	12	33	48		1.1	Whakapu, North Island	
		iP		34	5			R-F 3	
		iS		34	19	3.2			



DATE	DIRECTION	PHASE	TIME			AMPLITUDE	PERIOD	DISTANCE	REMARKS
			h	m	s				
Oct.18	N-S	iP iS	12	34	4	m.m. <u>1.4</u> <u>μ</u>			
Oct.19	E-W	O iP iPR ₁ iPR ₂ (s) iS M SR ₁ iL M	10	13	0			85.8	Chile
	N-S	i iS M SR iL M	10	26	46				
				36	22				
				38	5	89	15		
				43			17		
				52	26				
				53	17	<u>125</u>	25		
Oct.20	E-W	i	7	39	32	m.m.			Westport, R-F 4.
Oct.20	E-W	i	12	40	59	0.5			Takaka, R-F 3.
	N-S	i	12	40	58	0.8			
Oct.20	E-W	O iP iS	18	54	19			0.95	New Plymouth and Patea, R-F 3
				54	34				
				54	46				
	N-S	O iP iS	18	54	16			1.0	
				54	31				
				54	44				
Oct.20	E-W	O P iS	20	45	39			8.0	
				47	40				
				49	16				
	N-S	P iS	20						Record interrupted by changing paper.
				49	5				
Oct.21	E-W	iS	9	7	41	1.1			Takaka, R-F 5-6
	N-S	i	9	7	37	1.0	20		
Oct.21	E-W		12+						Tremors
	N-S	L	11	10					
Oct.21	E-W	iS	21	57	19	1.5			Takaka, R-F 5
	N-S	iS	21	57+		1.1			
Oct.24	E-W		5+						Tremors
	N-S		5	10			15		Tremors
Oct.25	E-W	i	5	32	30				
	N-S		5	35	-				Tremors
Oct.26	E-W	i	22	11	36	0.7			Takaka & Westport, R-F 4.
	N-S	i	22	11	38	1.0			
Oct.27	E-W	i	2	8	36	1.5			Westport, R-F 4.
	N-S	i	2	8	34	1.0			





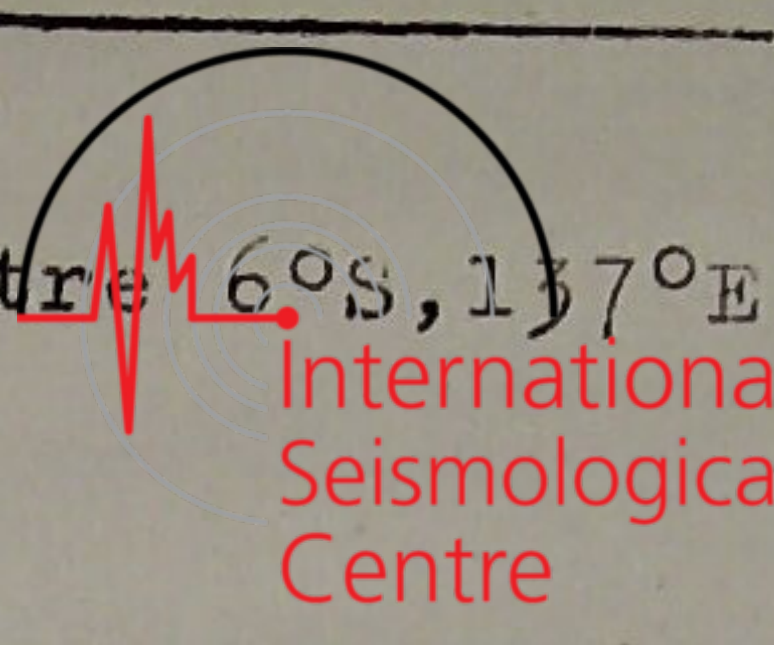
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DATE	DIREC- TION	PHASE	TIME			AMPLI- TUDE	PERIOD S	DISTANCE deg.	REMARKS
			p	m	s				
Oct. 31	E-W		22						Slight tremors.
Nov. 2	E-W	i	23	41	26				
	N-S	i	23	41	26				
Nov. 3	E-W	0	8	37	6			2.0	Takaka & Westport R-F 4.
		iP		37	36				
		iS		38	0	6.0			
	N-S	0	8	37	9			2.0	
		iP		37	39				
		iS		38	3	8.0			
Nov. 3	E-W	iS	17	40	56	1.7			Takaka, Westpport & Reefton, R-F 4.
	N-S	iS	17	40	56	1.0			
Nov. 4	E-W	i	15	44	28				
		L		47		s	14		
	N-S	L	15	47		s	17		
Nov. 5	E-W	i	14	39+					Local shock
	N-S	i	14	40	1				
Nov. 5	E-W	L	12	10		s	25		No minute marks
	N-S	L	12	3					
Nov. 9	E-W	i	0	10	1				Local shock; sheep tilt to West. Sharp tilt to North.
	N-S	i	0	9	59				
Nov. 10	E-W	iP	1	13	47				Takaka, Westport and Murchison R-F 4.
		iS		14+		3+			
	N-S	iS	1	14+		2+			
Nov. 10	E-W		8	50					Tremors Slight tremors
	N-S		8	45					
Nov. 10	E-W	0	23	42	55			1.7	
		iP		43	21				
		iS		43	43	2.8			
	N-S	0	23	42	49			2.4	
		iP		43	18				
		iS		43	43				
Nov. 11	E-W	i	13	16	48				Greymouth, R-F 4.
	N-S	i	13	17	7				
Nov. 12	E-W	i	12	19	37	1.0			Collingwood, R-F 3.
	N-S	i	12	19	33	0.7			
Nov. 12	E-W	iS	23	57	19	1.6			Westport, R-F 3.
	N-S	iS	23	56	18	1.3			
Nov. 13	E-W	L	0	53		s	18		
	N-S	L	1			s	18		
Nov. 13	E-W	0	6	50	59			2.1	Felt generally in N-w portion of South Island; Max R-F 6.
		iP		51	32				
		iS		51	57	8.0			
	N-S	0	6	51	1			2.1	
		iP		51	34				
		iS		51	29	11.0			
Nov. 15	E-W	i	0	6	32				Takaka, R-F 4.
	N-S	i	0	6	30				

DATE	DIREC-TION	PHASE	TIME			AMPLI-TUDE	PERIOD S	DISTANCE deg.	REMARKS
			h	m	s				
Nov.15	E-W	O	18	50	54	64	8	52.2	Suva Δ = 39°
		iP	19	0	15				
		iPR ₁	2	47					
		iPR ₂	3	46					
		iS	7	40					
		M	8	15					
		iSR	12	37	17				
		iL	19	14					
	M	20		278	19				
	N-S	O	18	50	47	134	12	53.8	
		iP	19	0	13				
		iPR ₂	3	29					
		iS	7	41					
		M	8	23					
iSR ₁		12	22	15					
L		18	3						
M ₁		18+		232	22				
M ₂	24		<u>95</u>	15					
			<u>m.m.</u>						
Nov.15	E-W	O	19	14	41	2.6	s	1.55	Nelson?
		iP	15	4					
		iS	15	24					
	N-S	iS	19	15	23	1.2			
Nov.16	(E-W) (N-S)	i	13	50	3				
Nov.16	E-W	i	15	58	14	s	10	Tremors	
Nov.16	E-W	e	23	36	9	s	11	Tremors	
	N-S		23	35					
Nov.17	E-W	O	3	43	33	129	22	64.6	
		iP	54	15					
		PR ₁	56	33					
		PR ₂	58	53	8				
		iS	4	2	53				
		iSR ₁	7	16					
		M	7+						
		iSR ₂	10	49	21				
		L	14	52					
		M ₁	16	43	263				29
	M ₂	19	38	231	23				
	M ₃	26		95	16				
	N-S	O	3	43	17	89	23	66.4	
		iP	54	11					
		iS	4	2	59				10
		SR ₁	6	58					
		M	8	33					
		L	14						
		M	22	46	<u>70</u>				18
				<u>m.m.</u>					
Nov.22	E-W	i	8	58	11			Kahurangi P..R-F 3.	
	N-S	i	8	58	10				
Nov.22	E-W	O	15	43	42	32.0	8	1.55	Felt strongly over whole north ern portion of South Island: Max. R-F 6. also slightly at New Plymouth and Wellington
		iP	44	5					
		iS	44	25					
	N-S	O	15	43	44	15+	18	1.55	
		iP	44	7					
		iS	44	27					
Nov.23	E-W	O	0	1	46	<u>m.m.</u>	48.0	Manila Δ = 24°	



DATE	DIRECTION	PHASE	TIME			AMPLITUDE	PERIOD S	DISTANCE deg.	REMARKS
			h	m	s				
Nov. 23	E-W	P	10	40		67	17	Approx. epicentre 16°S, 137°E.	
		iS	17	40					
		SR ₁	21	35					
		L	25						
		M	33	44					
	N-S	O	0	2	4		46.8		
		iP	10	50					
		iS	17	43					
		iSR ₁	21	8					
		M ₁	29		42	14			
	M ₂	32	48	37	11				
	M ₃	35	58	52	15				
Nov. 24	E-W	i	18	41	25				
	N-S	i	18	41	23				
Nov. 25	E-W	L	9	56					
	N-S		10				Tremors		
Nov. 26	E-W		18	15			Slight tremors		
	N-S		18	15			Slight tremors		
Nov. 26	E-W		23	15	s	14	Tremors		
	N-S		23	20	s	18	Tremors		
Nov. 28	E-W	iS	7	28	20	<u>m.m.</u> 1.1	Murchison, R-F 3?		
	N-S	iS	7	28	19	1.1			
Nov. 28	E-W	iS	7	46+		1+	Murchison, R-F 3?		
	N-S	i	7	46	55				
Nov. 28	E-W	i	22	19	3		Local shock		
	N-S	i	22	19	2				
Nov. 30	E-W	i	1	29	33	<u>μ</u>	Local shock		
	N-S	i	1	29	30				
Nov. 30	E-W	i	2	55	54		Local shock		
Dec. 2	E-W	O	1	16	22		0.55	Local shock Slight tilt to west	
		iP		16	30				
		iS		16	37				
N-S	O	1	16	23		0.5			
	iP		16	31					
	iS		16	37					
Dec. 2	E-W	i	3	44	49		Small local shock		
	N-S	i	3	44	52				
Dec. 3	E-W	i	4	36			Small local shock no minute marks.		
Dec. 3	E-W	i	4	40			Small local shock; no minute marks.		
Dec. 3	E-W	i	5	42			Small local shock; no minute marks.		
	N-S	i	5	42					
Dec. 3	E-W	eS	7	52		15	No minute marks		
	N-S	i	8	4	s				
Dec. 4	E-W	i	4	17	10		Small local shock.		
Dec. 4	E-W	i(s)	6	25	46		15		
		L		34					
		M		40	s				
N-S	i	6	36	20					





DATE	DIRECTION	PHASE	TIME			AMPLITUDE	PERIOD S	DISTANCE deg.	REMARKS
			h	m	s				
Dec. 4	E-W	i(s) L	7	47	7	<u>μ</u> s	17		
	N-S		8					Slight tremors.	
Dec. 5	E-W	O iP iS	5	44	5	<u>m.m.</u> 4.5	1.6	Takaka, R-F 4-5 Records disturbed by wind	
	N-S	O iP iS	5	44	56	2.8	1.55		
Dec. 5	E-W	i	6	59	33			Small local shock	
	N-S	i	6	59	30				
Dec. 6	E-W		12	30		<u>μ</u>		Tremors	
Dec. 6	E-W	e L M	17	7	22				
	N-S	L	17	30		s	17	Tremors	
Dec. 6	E-W	i L M	20	43	39				
	N-S		21	30		s	16	Slight tremors.	
Dec. 7	E-W	O iP iS	23	16	26	<u>m.m.</u> 4.5	2.2	Murchison and Westport, R-F 6.	
	N-S	O iP iS	23	16	26	4.0	2.1		
Dec. 9	E-W	O P iS SR L M ₁ M ₂	6	49	48	<u>μ</u>	83.5	Riverview Δ = 65° Manila Δ = 3098 Zi-ka-wei Δ = 39° Epicentre 3N; 92E	
	N-S	iS L	7	12	56	62 56	22 20		
Dec. 10	E-W	i L	13	20	22				
	N-S		13	25				Slight tremors	
Dec. 10	E-W	i	22	9	19			Small local shock	
Dec. 11	E-W	iS	15	43	6			Westport and Murchison R-F 4.	
	N-S	O iP iS	15	42	22		1.55		
Dec. 12	(E-W) (N-S)		21	30				Tremors	
Dec. 13	E-W	e L	8	33	56	s	15		
	N-S	e L	8	34	11				
Dec. 13	E-W	i	21	37	32			Small local shock.	

DATE	DIRECTION	PHASE	TIME			AMPLITUDE	PERIOD S	DISTANCE deg.	REMARKS
			h	m	s				
Dec. 14	E-W	L	4	15		μ			
Dec. 15	E-W	O	17	4	17	<u>m.m.</u>		2.1	
		iP		4	50				
		iS		5	15	3.0			
	N-S	O	17	4	21			1.95	
		iP		4	51				
		iS		5	15	4.0			
Dec. 16	E-W	O	0	45	19	μ		19.2	
		iP		49	50				
		iS		53	25				
		L		55					
		M		57		33	14		
	N-W	O	0	45	25			18.9	
		iP		49	53				
		iS		53	25		6		
		L		55					
		M		57		23	12		
Dec. 16	E-W	O	7	7	25	<u>m.m.</u>		1.95	
		iP		7	55				
		iS		8	19	25+			
	N-S	O	7	7	20			2.1	
		iP		7	53				
		iS		8	18	34+			
Dec. 16	E-W	O	11	25	27	μ		41.5	
		P		33	34				
		iS		39	55				
		L		43		s	17		
	N-S	i	11	35	45	s			
		L		39		s	12-17		
Dec. 17	E-W	O	10	59	32			86.2	
		iP	11	12	26				
		PR ₂		18	19				
		iS		23	4	31	7		
		iSR		29	31				
		iL		36	52		50		
		M ₁		38		1363	30		
		M ₂		38		692	24		
	N-S	O	10	59	23			87.5	
		iP	11	12	25				
		(S)		22	29				
		S		23	10	23	8		
		SR ₂		33	4				
		iL		38					
		M ₁		44		200	19		
		M ₂		52		204	18		
Dec. 17	E-W		21			s	16	Tremors.	
	N-S		21	40				"	
Dec. 18	(E-W)		9	12				"	
	(N-S)								
Dec. 18	E-W	L	12	47					
	N-S		12	50					
Dec. 19	E-W	O	15	31	51	<u>m.m.</u>		1.95	
		iP		32	21				
		iS		32	45	4.0			





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DATE	DIRECTION	PHASE	TIME			AMPLITUDE	PERIOD	DISTANCE	REMARKS
			h	m	s				
Dec. 19	N-W	O	15	31	51		1.95		
		iP		32	21				
		iS		32	45	3.5			
Dec. 20	E-W	L	10	45		s	18		
Dec. 20	E-W	i	12	36	16				
	N-S	i	12	36	20				
Dec. 20	N-S	i	21	2	46			R-F 5 at Murchison	
Dec. 21	E-W	i	4	25	5	s	10-15		
	N-S		4	30				Tremors	
Dec. 21	E-W	i	11	37	21		17		
Dec. 21	E-W	iS	20	28	5	3.0		R-F 5 at Kahurangi Point, and	
	N-S	iS	20	28	7	1.3		Murchison.	
Dec. 22	E-W		5					Slight tremors.	
Dec. 22	E-W		11	30				Stray microseisms. Slight tremors.	
Dec. 24	E-W	i	4	41	2				
		iS?		43	17				
		M		44	57	66	15	Stray Microseisms.	
	N-S		5					Tremors.	
Dec. 24	E-W	i	8	13	27				
		i		14	31				
		iS		15	12				
	N-S	i	8	13	29				
		i		14	32				
		iS		15	12				
Dec. 26	E-W	i	11	16	21			Records disturbed by wind.	
	N-S	i	11	16	23				
Dec. 27	E-W	i	13	50	4				
		i	13	50	2				
		L		54					
Dec. 28	E-W	O	1	22	49		19.9		
		iP		27	29				
		iS		31	10				
		iL		32	25				
	N-S	M		33	50	27	17		
		O	1	23	9		18.7		
Dec. 28	E-W	iP		27	34				
		iS		31	4				
		O	11	28	36		24.2	Riverview Δ = 22°8	
		iP		33	56				
		iS		38	14				
	N-S	M		39	7	29	11		
		L		40					
		M		43	39	64	14		
		O	11	28	11		25.5		
		iP		33	54				
Dec. 29	E-W	iS		38	24				
		iL		40	39				
		M		41	53	27	12		
Dec. 29	E-W	i	1	42	3			Small local shock. Records	
	N-S	i	1	42	3			disturbed by wind.	
Dec. 29	(E-W) (N-S)	i	22	2	50			Local shock.	
Dec. 30	E-W	O	0	16	8		1.0	Felt in southern part of North	
		iP		16	23			Islant, R-F 4.	
		iS		16	36				

DATE	DIRECTION	PHASE	TIME			AMPLITUDE	PERIOD S	DISTANCE deg.	REMARKS
			h	m	s				
Dec. 30	N-S	O	0	16	7	μ			
		iP		16	24				
		iS		16	38				
Dec. 31	E-W	i	1	14	53				
		i		22	29				
	N-S		1	30					Tremors and L waves.
Dec. 31	E-W	i	4	16	27				
		i		20	44				
	iL		22						
	N-S	i	4	16	54				
		L		21					
	M		22	41	17	15			
Dec. 31	E-W	L	5	0	20	18			
		M		8					
	N-S	L	5	0					
M			14	12	15				
Dec. 31	E-W	i	10	53	54				R-F 7 at <u>Kahurangi Point</u> .
	N-S	i	10	53	54				
Dec. 31	E-W	i	16	44	27	s	14		
		L		45					
	N-S	i	16	46	1				



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REGISTER FROM SUVA, FIJI, FOR 1929, OCTOBER, NOVEMBER,
and DECEMBER.

LATITUDE: 18° 9' S. LONGITUDE: 178° 26' E.
HEIGHT ABOVE SEALEVEL - 10 ft.



INSTRUMENTS

Milne Twin-boom Horizontal Seismograph. E-W and N-S components.
Magnification, 6. Periods, E-W, T = 8.7 secs. N-S, T = 10.8 secs.
Undamped.

Time is Greenwich Mean Time - 0 h. or 24 h. = Greenwich midnight.

DIRECTOR - C.E. ADAMS

NOTE: No records were obtained on the following days:-
October 10th, 11th, owing to clock trouble.
November 24th.
December 8th, and December 17th, owing to clock trouble.

DATE	DIREC-TION	PHASE	TIME h m	AMPLI-TUDE m.m.	DISTANCE deg.	REMARKS
Oct.				<u>m.m.</u>		
Oct.1	N-S	e	18 6.1			
Oct.2	E-W		2			Slight tremors.
	N-S	i	2 2.1			
Oct.5	E-W	i	11 13.7			Δ T not known.
	N-S	O	11 13.3		3	Felt sharply at Bua, Vanua Levu, Fiji.
		iP	14.1			
		iS	14.7			
		M	15.7	1.0		
Oct.6	E-W	i	8 5.0			Δ T not known.
	N-S	iS(?)	7 58.6			
		L	8 10.9			
		M	14	0.9		
Oct.6	E-W	O	13 9.0		16	No hour marks.
		P	12.9			
		iS	16.0			
		M	16.4	1.5		
		L	16.6			
		M ₁	17.5	1.5		
		M ₂	19.5	1.7		
		M ₃	21.5	1.7		
	N-S	O	13 9.0		15	No hour marks.
		iP	12.7			
		iS	15.6			
		iL	16.4			
		M	16.7	6.0		
Oct.7	E-W	O	15 7.6		11	
		iP	10.4			
		iS	12.6			
		L	14			
		M ₁	15.3	1.2		
		M ₂	17.9	1.1		
	N-S	O	15 6.0		10	
		iP	10.4			
		iS	12.4			
		iL	12.8			
		M	14.4	4.5		
Oct.8	E-W	O	17 15.0		11	
		P	17.8			
		iS	20.0			
		L	20.7			
		M ₁	23	4+		
		M ₂	25	6+		

DATE	DIRECTION	PHASE	TIME		AMPLITUDE	DISTANCE	REMARKS
			h	m			
Oct. 8	N-S	O	17	15.0	m.m 6+	12	
		P		17.9			
		M		-			
		iS		20.2			
		iL		20.5			
Oct. 9	E-W	e	19	29			
	N-S	e	19	28.7			
Oct. 13	E-W						Pronounced microseisms.
Oct 15	(E-W) (N-S)		3				Tremors
Oct. 15	E-W	O	7	36.6	2.1	4	
		iP		37.6			
		iS		38.4			
		M		39.4			
Oct. 15	N-S	iP	7	37.7	2.5		
		M		39.0			
Oct. 15	E-W	i	8	15.0			
	N-S	i	8	14.9			
Oct. 15	E-W	i	9	58.5	1.3		
		M	10	1			
	N-S	i	9	58			
Oct. 16	E-W	e	18	23.1	1.4		
		i		25.7			
		M		26.4			
		i		28.3			
		M		29			
Oct. 16	N-S	e	18	21.7	1.0		
		M		30.9			
Oct. 16	E-W		22		1.0		Tremors
	N-S	e	21	57.3			
		i		59.4			
		M	22	2.4			
Oct. 17	E-W	e	2	7.3			Tremors
	N-S		2				
Oct. 19	E-W	PR	10	31.0			Chile
		S		38			
	N-S	PR	10	28.4			
		S		37.7			
	L		57				
Oct. 20	E-W		19				Tremors
	N-S	e	18	48.7			
		M		56.0			AT not known
Oct. 21	E-W	i	3	51.0			
	N-S	i	3	51.0			
Oct. 23	E-W	O	14	44.1	2.0	2	Local shock.
		iP		44.6			
		iS		45.0			
	N-S	M		45.3	2.3	2.5	
		O	14	43.7			
		iP		44.3			
	iS		44.8				
	M		45.1				



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DATE	DIREC-TION	PHASE	TIME h m	AMPLI-TUDE m.m.	DISTANCE deg.	REMARKS
Oct. 24	E-W N-S					Heavy microseisms Slight "
Oct. 25	E-W					Strong "
Oct. 28	E-W N-S	i i	8 57.0 8 57.0			
Nov. 3	E-W N-S	i e	7 15.3 16.1 7 15.1			
Nov. 4	E-W N-S	e M e	14 39.2 41.0 14 38.6	1.2		T not known.
Nov. 14	(E-W) (N-S)		15 30			Tremors
Nov. 7	(E-W) (N-S)		22			Tremors
Nov. 9	E-W N-S	e	15 9.3			Pronounced microseisms. T not known
Nov. 10	N-S		8 4.2			Tremors
Nov. 10	E-W N-S	e e	17 17 3.2 5.9			Tremors
Nov. 12	E-W N-S	e e	20 55.6 20.56.9			
Nov. 15	E-W	P iPR M iSR ₁ iL M	18 58.9 19 0.4 4 7.4 9.5 11	1.6		
Nov. 15	N-S	O iP PR M iS M SR ₂ L M	18 51.2 59.0 19 0.0 2.2 5.1 6.8 9.0 10.0 16	2.0 1.5 6+	39	
Nov. 16	E-W N-S	e e M	16 15 41.0 59.3 16 2.5	0.7		Tremors
Nov. 16	E-W N-S	i i e i M	23 31.1 33.3 23 29.6 32.6 33.6	1.0		
Nov. 17	E-W	O iP iS M L M	3 44.5 53.9 4 1.4 3.1 11.8 14	1.6 1.2		



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DATE	DIRECTION	PHASE	TIME		AMPLITUDE	DISTANCE deg.	REMARKS
			h	m			
Nov. 17	N-S	iS L	4	10.0	<u>m.m</u>		In hour mark.
Nov. 18	(E-W) (N-S)		21				Tremors and L waves
Nov. 21	E-W N-S	i i	3	37.5 29.7			Tremors ΔT not known Tremors
Nov. 22	N-S		3				Tremors
Nov. 22	N-S		16				Tremors from New Zealand
Nov. 23	E-W N-S	iPR iS	0	10.5 15.3 0+			ΔT not known Tremors
Nov. 26	N-S	e	18	9.7			
Nov. 26	E-W N-S	e	22	8.3 22			Tremors
Dec. 1	E-W						Pronounced microseisms.
Dec. 4	E-W N-S	i i	5	24.5 24.9			
Dec. 6	N-S		21				Tremors
Dec. 7	N-S		22				Tremors
Dec. 9	E-W	e i i i	10	19.7 21.5 22.7 24.3			
Dec. 10	(E-W) (N-S)						Strong microseisms
Dec. 11	(E-W) (N-S)						Very strong microseisms.
Dec. 12	N-S	e	20	40.3			ΔT not known.
Dec. 13	E-W						Strong microseisms Pronounced microseisms
Dec. 14	E-W N-S	i e	2	54.6 52.8			ΔT not known
Dec. 14	E-W N-S	i e i	4	8.5 5.0 8.5			
Dec. 16	E-W N-S		11	40 40			Slight tremors Tremors
Dec. 18	E-W N-S	e M e i	4	50.8 52.6 49.3 49.6	1.5		
Dec. 18	E-W N-S	e M i e M i	9	2.9 4 - 6.9 2.0 4 4.8	3+ 1.8		
Dec. 18	(E-W) (N-S)		11	15			Tremors



DATE	DIREC- TION	PHASE	TIME		AMPLI- TUDE	DISTANCE deg	REMARKS
			h	m			
Dec.18	(E-W) (N-S)		12	10	<u>m.m</u>		Tremors
Dec.18	E-W	e	12	38.3	4+		
		i		39.3			
	M		41				
	N-S	e	12	37.1			
		i		39.1			
		M		39.8	1.9		
		i		40.5			
Dec.21	E-W	iP	4	17.0	2.1		Δ T not known
		i		18.8			
		iL		20.6			
		M		22.4			
	N-S	O	4	13.3			
eP			17.0				
iS			19.9				
iL			20.8				
M			21.7				
Dec.21	E-W	i	12	25.3			Δ T not known Tremors
	N-S		12+				
Dec.24	E-W	O	4	28.9	2.0	20	Δ T not known
		iP		33.6			
		M		36.8			
	N-S	iS		37.3			
		M		40 -			
		O	4	29.3			
	iP		33.6				
	M		36.0				
	iS		37.0				
		M		38.	6.0		
Dec.24	N-S		8	20			Tremors
Dec.24	E-W	e	14	11.4	2.3		Δ T not known
		i		12.0			
		M		13.0			
	e	14	10				
	N-S	M		12.5	1.0		
Dec.27	N-S		14				Slight tremors
Dec.28	N-S	e	11	30	0.6		
		M	12	-			
Dec.30	E-W	e	4	50.0			
	N-S	e	4	48.7			
Dec.30	E-W	i	7	31.3			
	N-S	e	7	23.7			
Dec.31	(E-W) (N-S)	L	1				Tremors and L waves
Dec.31	(E-W) (N-S)		5				Tremors.
Dec.31	E-W	O	16	32.6	1.0	11	Δ T not known
		iP		35.4			
		iS		37.6			
		L		38.8			
		M		42.			
	N-S	O	16	32.4	0.9	11	
		iP		35.2			
		eS		37.5			
		M ₁		39.0			
		M ₂		41			



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