No records available from 28th Dec, 1950 to 4th Jan. 1951.

1951 Records from one component only from 4th Jan.

Jan.	N	iPP	05 27 23			5°0	U.S.C.G.S.
6.	N	iPPP	28 57			5555 Km	15°S 167°E.
	N	i	29 40				
	N	iS	33 09				
	N	iPS	33 45				
	N	iSS	36 49				
	N	iSSS	38 09				
	N	L	41 21				
	N	M	44 41	9	9		
		F	0608 –				

King's College Observatory, Aberdeen.

Date	Comp't	Phase	Time G. M. T. h. m. s	Period Secs.	Amp μ.	Δ° Km.	Remarks: Time of Origin
Jan.	N	P	08 03 23			47°	
*6.	N	i	05 14			8555 Km	T_0 = 04h. 51m. 33 s.
	N	i	10 21				
	N	iS	13 13				
	N	L	23 –				
	N	M	25 22	25	39		
		F	09 28 –				
Jan. 15.	E	iPPS	04 45 38				
	E	i	50 29				U.S.G.G.S
	E	iSS	51 23				15°S. 167°E.
	E	iSSS	55 54				
	E	e	05 09 52				
	E	eL	19 42				
	E	M	24 58	19	4		
		F	06 – –				
Jan. 23.	E	i	08 10 02				Mainly surface waves.
	E	i	11 31				
	E	i	13 09				
	E	e	16 46				
	E	M	22 46	19	12		
		F	48 –				
Jan. 28.	E	e	14 08 40				
	E	M	14 42	18	2		
		F	28 –				
Jan. 29	E	e	06 12 14				Very slight
		F	27 –				
Jan. 30	E	i	23 15 05				
	E	i	18 34				
	E	i	19 15				
	E	i	25 00				
	E	M	34 35	20	16		
		F	24 03 –				

			h m s				
Feb. 12	E	i	17 38 54				
	E	iS	40 17			53°	U.S.C.G.S. 66°N 136°E
	E	i	42 03			5890 Km.	
	E	e	46 06				
	E	L	49 26				
	E	M	18 00 43	16	13		
		F	19 00 –				
Feb 13	E	iPPKP	12 16 00				
	E	i	19 51				U.S.C.G.S. 15°S 175°W.
	E	iPPP	22 10				
	E	e	30 57				
	E	e	54 –				
		F	?				
Feb 13/14	E	iP	22 23 42			65·6°	
	E	iPP	26 05			7240 Km	U.S.C.G.S. 56°N 155½°W
	E	iPPP	27 35				
	E	i	27 54				
	E	iS	32 27				
	E	iPS	32 57				
	E	i	35 30				
	E	iSS	36 57				
	E	iSSS	39 53				
	E	i	42 58				
	E	L	44 37				
	E	M_Q	50 55	23	86		
	E	M_R	55 04	17	94		
	E	M	01 02 09	20	6		By path > 180°
		F	38 –				
Feb 22	E	e	02 57 20				Very slight; ? seismic.
		F	03 01 –				
Mar 2	E	iP	01 37 22			19·0°	U.S.C.G.S. 5½°N 35°W.
	E	e	40 36			2110 Km	T_0 = 01h 33·0 m.
	E	iS	40 59				
	E	iSS	41 23				
	E	L	42 25				

Date	Compt.	Phase	Time G. M. T. h. m. s.	Period Secs.	Amplitude M.	Δ° Km.	Remarks: Time of Origin.
Mar. 2 cont'd	E	M	01 43 41	1·4	4		
		F	55 –				
Mar. 2	E	e	05 53 25				Very slight.
		F	55 –				
Mar. 4	E	i	11 41 35				Marely surface waves.
	E	i	43 26				
	E	i	47 23				
	E	eL	12 02 38				
		F	12 –				
Mar. 5	E	iPP	20 27 35			84·6°	U.S.C.G.S. 29°N 128°E
	E	iSKS	34 19			9400 Km	
	E	S	34 41				T_o = 20h 11·7m.
	E	iPS	35 24				
	E	e	41 15				
	E	i	52 46				
	E	L	21 00 34				
	E	M	07 39	20	3		
		F	23 –				
Mar. 9	E	iP	20 03 24			112·5°	
	E	iPP	07 56			12500 Km.	
	E	iPPP	10 34				
	E	iS	15 26				
	E	i	24 55				
	E	e	35 23				
	E	L	40 20				
	E	L	46 13				
	E	M	53 56	30	18		
		F	22 03 –				
Mar. 10	E	iP	10 42 51			12·8°	
	E	iPPP	43 02			1420 Km.	
	E	i	43 26				
	E	i	44 07				
	E	iS	45 14				
	E	i	46 47				

Mar. 10	E	L	10 48 53					
Cont'd	E	M	49 39	16	5			
		F	55 –					
Mar. 10.	E	ePKP	22 16 53			138°	U.S.C.G.S.	15½° S
	E	i	17 24			15340 Km.		16½° E
	E	iSKP	20 19					
	E	iPPP	23 05				T_o = 22h 57·5m.	
	E	SKS	24 08					
	E	iPPS	31 49					
	E	iSS	37 33					
	E	i	38 18					
	E	e	53 33					
	E	L	23 02 03					
	E	M	08 43	25	17			
		F	24 12 –					
Mar. 12.	E	e	15 30 35					
	E	M	36 47	15	8			
		F	58 –					
Mar 14	E	iPg	09 49 54			8·2°		
	E	iSg	51 48			910 Km.		
	E	i	52 21				T_o = 09h 47m. 6s.	
	E	i	52 53					
	E	i	53 29					
	E	M	53 41	11	12			
		F	58 –					
Mar 17	E	e	05 06 38				Mainly surface waves.	
	E	i	07 37					
	E	M	11 17	12	9			
		F	18 –					
Mar. 24	E	e	21 31 52				Very slight	
		F	34 –					
							No further record in March.	

Natural Philosophy Department
Marischal College, Aberdeen.

Lithologic foundation: Glacial deposit over Boulder Clay.
Instrument: Milne-Shaw seismograph.
Photographic registration: one component during this period.

Comp. E-W	Mass 1 lb.	To 10 secs	Damping Ratio 20:1		Magnification 150		1" Silt 18:1	Date from which constants apply. 12/7/50
Sub	Comp.	Phase	Time G. M. T.		Period Secs	Amp. M	Δ° Km.	Remarks: Time of origin.
Apr. 2	E	e	00 51 46					
	E	M	58 38		19	5		Surface waves only.
		F	01 15 –					
Apr. 5.	E	i	03 23 54					
	E	i	25 05					Obscured by microseisms.
	E	i	26 06					
	E	L	29 00					
	E	M	30 00		19	7		
		F	46 –					
Apr. 8	E	iP	21 44 40				30·8°	
	E	iS	49 52				3420Km.	T_o = 21h 38m 20m.
	E	e	50 54					U.S.C.G.S. 34°N 35°E.
	E	i	53 23					
	E	L	55 00					
	E	M	57 19		25	13		
	E	L	59 52					
	E	M	22 03 10		15	11		
		F	21 –					
* Apr. 10	E	ePKP	11 16 04					
	E	e	20 50					U.S.C.G.S. 15°S 173½°W.
	E	eSKKS	26 –					
	E	e	42 50					
	E	eL	12 05 30					
	E	M	15 40		20	3		
		F	24 –					
Apr. 14	E	iSKS	01 08 53				16°	
	E	iS	10 06				10810 Km	

	E	i	25 41					
	E	i	34 56					
	E	M	40 04	20	6			
		F	56 –					
a/m.	E	i	04 27 13					
14	E	i	30 13					
	E	i	37 00					
	E	i	39 53					
	E	M_1	41 36	15	18			
	E	M_2	44 53	15	16			
		F	57 –					
a/t	E	iS	13 51 14					U.S.C.G.S. 61°N 136°E
14	E	iSS	54 46					
	E	i	57 17					
	E	e	59 07					
	E	L	14 05 37					
	E	M	08 35	16	40			
		F	15 13 –					
a/t	E	eS	00 01 19			19.6°		U.S.C.G.S. 28½N 94E.
15	E	i	02 15			774.0 Km		
	E	iSS	05 57					$\bar{t}_0$ = 23h 40m 58s.
	E	eSSS	09 04					on 14th
	E	eL	19 00					
	E	M	24 59	15	24			
		F	58 –					
a/m	E	e	04 16 10					
* 22	E	e	20 06					
	E	M	21 36	15	3			
		F	31 –					

D.	Comp.	Phase	Time G. M. T	Period secs	Ampl. μ	Δ°	Km.	Remarks : Time of origin
Apr.	E	iPPP	12 45 18					U.S.C.G.S. 76 N 73° W.
22	E	i	48 19					
	E	i	50 04					
	E	M	54 08	15"	5"			
		F	13 13 –					
Apr	E	i	05 31 54					Slight ? seismic.
23	E	e	39 50					
		F	06 44 –					
Apr	E	i	05 47 00					Very slight
24		F	06 58 –					
Apr	E	i	15 48 09					U.S.C.G.S. 8°S 153°E.
29	E	iPP	49 16			131°		
	E	iPKS	50 02			14,500 Km		
	E	iPPP	52 34					
	E	i	57 00					
	E	i	16 00 22					
	E	iPS	01 12					
	E	i	06 06					
	E	iSS	07 04					
	E	e	12 39					
	E	L	26 50					
	E	M	35 47	22	13			
		F	17 51 –					
May	E	$iPKP_2$	05 22 59					U.S.C.G.S. 50½°S 149°E
1	E	i	23 33					
	E	iPP	27 20					
	E	i	27 39					
	E	iPPP	30 27					
	E	iSKKS	33 56					
	E	i	38 27					
	E	iSS	47 11					
	E	iSSS	54 17					
	E	L	06 08 09					
	E	M	22 25	30	48			
		F	07 43 –					

May 2	E	e	17 16 00			
	E	e	20 30			
	E	eL	32 20			
	E	M_1	36 13	18	5	
	E	M_2	40 23	20	8	
		F	18 33 –			
May 3	E	i	04 26 50			Very slight.
		F	30 –			
May 4	E	i	12 09 55			
	E	i	13 43			
	E	e	14 20			
		F	25 –			
May 4	E	i	19 52 12			Slight surface waves.
		F	20 00 –			
May 6	E	e	23 26 10			
	E	i	29 23			
	E	i	31 35			
	E	eL	40 20			
	E	M_1	43 35	22	5	
	E	M_2	55 18	20	6	
		F	24 27 –			
May 7	E	i	20 37 09			According to U.S.C.G.S.
	E	i	51 20			aftershock of previous
	E	L	21 01 15			disturbance. Slight.
		F	18 –			
May 10	E	i	09 41 30			U.S.C.G.S. 21°S. 33°E.
	E	i	51 13			
	E	e	56 30			
	E	eL	10 03 40			
	E	M	10 39	15	6	
		F	34 –			
May 10	E	i	15 40 –			Slight
		F	49 –			

Date	Compt	Phase	Time G. M. T.	Period secs	Ampl. μ	Δ° Km.	Remarks: Time of origin.
May	E	eL	22 31 40				U.S.C.G.S. 51°N 180°
10	E	M	41 1Y	16	2		
		F	55 -				
May	E	e	22 2Y 18				
12	E	i	32 19				
	E	i	36 16				
	E	M	38 25	15	3		
		F	59 -				
May	E	e	1Y 12 18				Very slight.
13	E	e	18 30				
		F	2Y -				
May	E	i	04 16 11				
14	E	e	29 50				
	E	i	36 24				
	E	e	38 20				
	E	M	42 19	18	2		
	E	M_R	44 40	19	5		
		F	05 05 -				
May	E	e	05 32 10				U.S.C.G.S. 21°S 69½°W.
15	E	i	36 16				
	E	i	40 20				
	E	e	41 30				
	E	i	43 04				
	E	e	50 10				
	E	M	06 10 23	20	3		
		F	25 -				
May	E	i	23 00 53				
15	E	i	02 15				Very slight
		F	09 -				
May	E	iS	16 02 33			19.4°	U.S.C.G.S. 38°N 4°W.
14	E	i	03 26			2150 Km.	
	E	L	04 08				
	E	M	05 30	20	16		
		F	24 -				

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Date	Comkt	Phase	Time G. M. T	Period Secs	Ampl. μ	Δ° Km.	Remarks: Time of origin.
May 21	E	e	08 46 04			128°	U.S.C.G.S. 6°S 154½°E
	E	iSKP	49 52				
	E	iPPP	51 27				
	E	i	52 09				
	E	iPS	58 32				
	E	eL	09 34 35				
	E	M	44 34	24	4		
		F	10 15 –				
May 27	E	e	04 39 16			41°	U.S.C.G.S. 23½°N 45°W.
	E	iS	44 37			4560Km.	
	E	e	48 36				
	E	M	53 39	20	3		
		F	59 –				
* May 28	E	eL	16 30 35				U.S.C.G.S 29°N 86½°E.
	E	M	39 19	22	3		
		F	52 –				
May 29	E	iPP	06 23 30			120°	U.S.C.G.S. 3°S, 138½°E.
	E	iPPP	25 49			13,330Km.	
	E	i	29 55				T_0 = 06h 03·2m.
	E	ePS	33 13				
	E	eSS	39 50				
	E	iSSS	44 27				
	E	eL	58 50				
	E	M_1	07 07 40	25	4		
	E	M_2	15 07	22	7.		
		F	08 24 –				
May 30	E	e	20 15 53			112·5°	U.S.C.G.S. 3°S 126½°E
	E	iPP	16 22			12,500 Km.	
	E	i	18 38				T_0 = 19h 57m 05s.
	E	iSKS	22 22				
	E	iPS	25 46				
	E	i	26 14				
	E	eSS	32 15				
	E	e	39 33				

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Date	Compt.	Phase	Time G.M.T.	Period secs	Amp: μ	Δ°: Km.	Remarks: Time of origin.
May	E	eL	20 54 28				
30	E	M	21 03 44	25	4		
cont'd		F	28 –				
May	E	iP	21 08 54			89·5°	U.S.C.G.S. 19°N 121°E
31.	E	i	09 54			9945 Km.	
	E	iPP	12 38				T_o = 20h 56·0m.
	E	ePPP	14 26				
	E	iSKS	19 19				
	E	iS	19 49				
	E	iPS	20 53				
	E	e	25 46				
	E	e	29 35				
	E	eL	40 40				
	E	M	46 09	23	40		
		F	22 24 –				
June	E	e	19 18 23				
3	E	M	26 10	15	1		
		F	32 –				
June	E	e	02 13 40				Very slight.
5		F	32				
June	E	i	19 10 16			84·6°	U.S.C.G.S. 30°N 132°E.
5	E	iP	10 26			9400 Km	
	E	i	11 34				T_o = 16h 57m 55s.
	E	iPP	13 44				
	E	iSKS	20 37				
	E	iS	20 55				
	E	i	22 44				
	E	eSS	26 26				
	E	eSSS	30 38				
	E	L	36 09				
	E	M_1	41 28	30	68		
	E	M_2	44 37	22	57.		
		F	19 13 –				

			G. M. T.	Secs	μ	Δ	Remarks; Place of Origin.
June 6	E	iP	16 14 17			15°	U.S.C.G.S. 41½ N 8° W.
	E	iPP	14 25			1660 Km	
	E	i	14 37				T_o = 16h 10m 45S.
	E	i	15 32				
	E	e	16 37				
	E	eS	17 14				
	E	iSS	17 39				
	E	L	18 40				
	E	M	19 53	15	18?		
		F	Lost through horizon of light source.				
June 9	E	iP	11 29 23				
	E	i	31 44				
	E	iS	34 31				
	E	i	36 31				
	E	L	46 25				
	E	M_1	49 43	22	3		
	E	M_2	54 42	17	3		
		F	12 18 —				
June 10	E	e	00 58 45				Very slight
	E	M	01 06 23	15	1		
		F	16 —				
June 10	E	e	09 19 30				
	E	M	20 30	22	3		
		F	35 —				
June 17	E	e	10 08 50				
	E	eL	13 23				
	E	M	21 37	20	3		
		F	30 —				
* June 20	E	iP	22 02 35			88.2°	
	E	iPS	14 40			9800 Km.	
	E	iSS	19 22				
	E	e	35 40				
	E	M	45 44	15	5		
		F	23 00 —				

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Date	Comp't	Phase	Time G.M.T.	Period secs.	Amp μ	Δ° Kms.	Remarks: Time of origin.
June 20	E	e	23 39 20				Very slight.
		F	53 -				
June 21	E	e	00 40 35				
	E	M	42 50	25	3		
		F	01 04 -				
June 24	E	e	11 44 35				
	E	M	54 54	20	3		U.S.C.G.S. 19°N 146½°E.
		F	12 30 -				
June 25	E	e	16 45 50				
	E	M	58 50	20	2		
		F	17 01 -				

A E M Geddes.

Natural Philosophy Department,
Marischal College,
Aberdeen

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King's College Observatory, Aberdeen.

Lat. 57° 10' N. Long. 2° 6' W. Height above M.S.L. 12 m.

Lithologic foundation: Glacial deposit over boulder clay.

Instruments: Milne-Shaw Seismographs.

Photographic registration: mainly one component during the period.

Compt	Mass	To	Damping Ratio	Magnification	1" Tilt	Date from which constants apply.
E	1lb	10 secs.	20:1	150	18.1 mm	17/7/51
N	1lb	10 secs	20:1	150	18.1 mm	17/7/51

Date	Compt.	Phase	Time G.M.T. h m s	Period secs.	amp. μ	Δ° km.	Remarks: Time of origin.
July 1	E	e	06 00 34				Surface waves only.
	E	e	05 18				
	E	M	13 52	17	2		
		F	26 -				
July 2	N	e	23 06 55				
	E	e	07 30				
	E	M	20 50	15	2		
	N	M	22 31	20	3		
		F	24 00 -				
July 3	E	i	05 41 20			43.6°	
	NE	iSS	43 21			4850 Km	E 43m 26S.
	N	iSSS	44 20				
	N	e	54 40				
	E	i	57 44				
	NE	M	06 03 58	E 13 N 15	2 2		
		F	21 -				
July 8	E	i	06 01 35			100.8°	U.S.C.G.S. 11°N 122° E.
	E	iPP	02 19			11,200 Km	
	E	i	07 29				T_o = 05h 44m 17S.
	E	iSKS	08 39				
	E	iSKKS	08 57				
	E	iS	09 51				
	E	iPS	10 53				
	E	i	12 37				
	E	iSS	16 50				
	E	eSSS	20 30				
	E	e	23 50				
	E	eL	30 30				

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Date.	Compt.	Phase	Time G.M.T. h. m. s	Period secs	amp. μ.	Δ° Km.	Remarks: Time of origin.
July 8 cont'd	E	M	06 40 47	26	29		
		F	07 32 –				
July 3	N	e	18 46 30				
	E	e	49 45				
	N	M	52 40	20	3		
	E	M	53 43	20	3		
		F	19 03 –				
* July 9	E	iP	00 16 03			78.1°	U.S.C.G.S. 16°N. 96°W.
	E	i	22 41			8680 Km.	
	E	iS	25 57				T_o = 00h 04m 06s.
	E	iPS	26 40				
	E	eL	41 50				
	E	M	45 49	23	4		
		F	01 09 –				
July 11	NE	i	18 35 23			88.5°	U.S.C.G.S. 28½°N. 139½°E.
	NE	iPP	36 32			9840 Km.	N 36m 40s.
	NE	iPP	37 40				
	E	i	38 50				T_o = 18h. 22m. 06s.
	NE	iPPP	39 40				
	NE	iSKS	43 40				
	NE	iS	44 10				
	NE	iSS	47 17				
	NE	iSS	50 10				
	E	i	51 50				
	N	i	52 59				
	NE	i	57 23				
	E	L	19 06 33				
	N	L	07 15				
	E	M	10 51	20	22		
	N	M	11 37	20	8		
		F	20 20 –				
July 13	E	iPP	20 14 50			126°	U.S.C.G.S. 7°S 156°E
	E	i	15 50			14,000 Km.	
	E	i	17 35				

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Date	Compt.	Phase	Time G.M.T. h. m. s.	Period sec.	Amp. μ.	Δ° Km	Remarks: Time of origin.
July 13	E	e	20 24 40				
Cont'd.	E	iSS	31 50				
	E	e	34 50				
	E	eL	52 30				
	E	M	21 03 31	22	3		
		F	29 –				
July 14	E	e	07 40 28				U.S.C.G.S. 47°N 154½°E.
	E	i	41 34				
	E	e	42 40				
	E	L	08 03 –				
	E	M	09 50	20	3		
		F	31 –				
July 16	E	i/PP	11 01 29			125°	U.S.C.G.S. 6°S 146°E.
	E	i	02 40				
	E	iPS	10 35				
	E	iSS	14 31				
	E	eL	36 40				
	E	M_1	39 41	32	7		
	E	M_2	43 56	22	5		
		F	12 35				
July 18	E	eP	09 16 04			59.4°	U.S.C.G.S. 1°N 24°W.
	E	i	16 21			6600 Km.	
	E	i	17 26				T_0 = 09h 06m 14S.
	E	iPP	18 21				
	E	i	19 43				Record from 09h 20m
	N	M_1	34 52	14	143		– 09h 42m lost.
	N	M_2	36 28	13	141		
	E	M	42 54	13	90		
		F	12 20 –				
July 19	E	i	21 01 58				
	E	i	04 34				
	E	e	10 39				
	E	e	17 10				
	E	e	21 30				

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Date	Comp't	Phase	Time G.M.T. h m s.	Period Sec.	Amp. μ.	Δ° Km.	Remarks: Time of origin.
July	E	eL	21 26 40				
* Cont'd	E	M	33 38	16	2		
		F	22 28 –				
July	E	iP	01 43 41			41·5°	
21	E	iS	52 59			7950 Km.	
	E	i	55 50				T_0 = 01h 32·7m.
	E	iSS	57 42				
	E	?	02 01 32				
	E	e	10 52				
	E	M	16 37	20	2		
		F	34 –				
July	E	i	03 33 26				
21	E	i	33 51				
	E	iPP	34 37				
	E	i	37 00				
	E	e	41 23				
	E	eL	57 57				
	E	M	04 01 40	22	3		
		F	18 –				
July	E	e	21 03 30				Very slight.
21	E	M	05 00	15	1		
		F	04 –				
July	E	e	10 51 49				
25	E	e	55 31				
	E	e	56 46				
	E	M	57 21	12	<1		
		F	11 06 –				
July	E	iS	10 21 48			74·5°	U.S.C.G.S. 41°N 143°E
* 26	E	iPS	22 29			8610 Km.	
	E	i	23 37				
	E	e	42 38				
	E	M	46 38	20	2		
		F	11 22 –				

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Date	Compt.	Phase	Time G.M.T. h. m. s.	Period Secs.	amp. μ	Δ° Km.	Remarks; Time of origin.
July 28/29	E	i	23 20 55			81°	U.S.C.G.S. 37°N 114½°E.
	E	is	27 02				
	E	i	27 26				
	E	i	36 30				
	E	eL	49 25				
	E	M	57 36	20	3		
		F	24 22 –				
* Aug. 2	E	iPP	10 39 34			150°	
	E	iPPS	52 22				
	E	iSS	58 03				
	E	e	11 02 17				
	E	eL	15 20				
	E	M	43 37	20	3		
		F	12 30 –				
Aug 3	E	iP	00 36 27			83·9°	U.S.C.G.S. 13°N 87½°W.
	E	i	36 45			9320 Km.	
	E	i	42 04				T_o = 00h 24·0m.
	E	i	45 24				
	E	iS	46 51				
	E	i	48 59				
	E	i	50 17				
	E	iSS	52 25				
	E	e	01 01 27				
	E	e	04 40				
	E	M	11 37	20	4		
		F	39 –				
Aug 8	E	i	21 06 47				? seismic.
	E	i	08 50				
		F	11 –				
Aug 10	E	i	05 50 16				U.S.C.G.S. 8½°N 40°W.
	E	e	56 20				
	E	L	57 25				No definite maximum.
		F	06 13 –				

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Date	Compt	Phase	Time G.M.T. h. m. s.	Period Sec.	amp. μ.	Δ° Km	Remarks: Time of origin.
Aug 13	E	iP	18 39 16			25·8°	U.S.C.G.S. 43°N 32½°E.
	E	i	39 23			2865 Km.	
	E	iPP	39 55				T_0 = 18h 33m 52 s.
	E	i	40 56				
	E	i	41 34				
	E	iS	43 46				
	E	i	44 03				
	E	i	44 31				
	E	i	45 56				
	E	L	51 01				
	E	M	58 27	14	25·4		
		F	21 07 –				
Aug 13	E	i	21 21 36				May be aftershock of previous earthquake.
	E	i	23 28				
	E	e	30 50				
	E	M	38 40	20	3		
		F	22 10 –				
Aug 14	E	i	18 51 29				
	E	i	51 44				
	E	e	56 20				
	E	e	19 03 40				
	E	M	04 26	15	1		
		F	15 –				
Aug 17	E	iP	00 01 14			48·4°	
	E	iS	08 14			5380 Km	
	E	i	10 58				
	E	eSSS	12 35				
	E	e	20 40				
	E	M_1	23 55	20	3		
	E	M_2	29 45	16	3		
		F	39 –				
Aug 18	E	e	04 36 45				
	E	e	40 40				
	E	M	46 33	21	6		
		F	53 –				

Date	Comp't.	Phase	Time G.M.T. h. m. s.	Period sec.	Amp. μ	Δ° km	Remarks: Time of origin.
Aug 21	E	i	11 14 14			111°	U.S.C.G.S. 19¾°N 156°W.
	E	iPPP	18 27				
	E	i	21 24				
	E	iSKS	22 28				
	E	iSKKS	23 23				
	E	iS	24 04				
	E	iPS	25 46				
	E	iPPS	27 14				
	E	i	29 27				
	E	eSS	31 29				
	E	i	37 23				
	E	e	40 14				
	E	L	48 39				
	E	M	56 47	19	5		
		F	13 40 –				
Aug. 24	E	i	10 42 46				
	E	e	43 45				
	E	M	47 30	11	<2		
		F	53 –				
Aug. 31.	E	iP	12 35 50			32.4° 3640km	Mainly surface waves.
	N	i	40 10				
	E	iS	41 10				
	N	e	45 20				
	E	M	47 19	17	5		
	N	M	48 40	11	2		
		F	13 00 –				
Aug. 31	E	e	20 29 30				Mainly surface waves.
	E	e	33 35				
	NE	L	34 50				
	E	M	37 39	20	4		
	N	M	38 37	17	2		
		F	45 –				
Sept 1	E	i	07 03 30				
	E	e	04 50				
	NE	eL	05 50				
	N	M	06 14	17	2		
	E	M	08 33	15	3		
		F	18 –				

Date	Compt	Phase	Time G.M.T. h m s	Period secs	amp mm	Δ° Km.	Remarks: Time of origin.
Sept 1.	E	i	09 24 25				Nothing readable on N-S.
	E	iss	28 12				U.S.C.G.S. 33°S 110°W.
	E	e	55 10				
	E	eL	10 02 40				
	E	M	10 22	18	2		
		F	15 –				
Sept. 9.	N	e	05 59 40				U.S.C.G.S. 16°S 173°W.
	E	e	06 08 20				Very slight.
	E	M	11 15	20	2		
		F	15 –				
Sept. 14.	E	e	13 53 20				
	E	M	14 00 45	18	2		Marked on N-S by shaking of building.
		F	09 –				
Sept. 15.	E	i	23 02 40				No effect on N-S.
	E	e	04 20				
	E	M	11 38	15	3		
		F	16 –				
Sept. 21.	E	e	10 08 30				Very slight.
	N	e	10 20				
	NE	M	13 –20 –				
		F	27 –				
Sept. 24.	E	e	13 54 30				Marked by shaking of building especially on N-S.
	E	M	14 01 40	17	3		
		F	30 –				
Sept. 27.	E	i	19 43 20			75°	
	N	e	43 50			8340 Km	T_0 = 19h. 24m. 12s.
	E	eS	45 32				
	N	iPS	46 09				
	E	iss	50 54				
	NE	eL	54 30				
	NE	M	59 30	20	14		E-W
			33	18	6		N-S.
		F	20 25 –				

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Date	Compt.	Phase	Time G. M. T. h m s.	Period secs.	Amp. μ	Δ° Km.	Remarks: Time of origin
Sept. 28.	E	e	12 46 –				Nothing on N-S.
	E	M	51 28	18	2		
		F	58 –				
Sept. 28.	E	e	15 23 10				Slight surface waves.
		F	40 –				
Sept. 28/29	N	iPKP	23 48 46				
	N	i	50 28				
	E	i	50 33				
	E	i	00 01 17				
	N	i	01 44				
	E	i	11 56				
	N	e	54 15				
	E	e	54 48				
	N	M_1	01 05 36	19	2		
	E	M_1	06 26	20	6		
	E	M_2	27 36	19	4		
	N	M_2	28 38	19	2		
		F	55 –				

Natural Philosophy Department
Marischal College
Aberdeen.

A. E. M. Geddes.

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King's College Observatory: Aberdeen

Lat.: 57° 10' N Long.: 2° 6' W. Height above M.S.L. 12 m.

Lithologic foundation: Glacial deposit over boulder clay.

Instruments: Milne - Shaw Seismographs.

Photographic Registration

Comp't	Mass	To	Damping Ratio	Magnification		1" Jilt	Date from which constants apply
E	1 lb.	10 secs	20 : 1	150		18·1 mm	17/1/51.
N	1 lb.	10 secs	20 : 1	150		18·1 mm	17/1/51

Date	Comp't	Phase	Time G.M.T. h m s	Period sec.	Amp. μ	Δ° km.	Remarks: Seat of origin
Oct	E	e	10 54 22				No trace on N-S.
1.		F	11 10 –				U.S.C.G.S.: 55°N 166°W.
Oct	E	e	13 01 25				U.S.C.G.S.: 28½°S. 177 W.
5.	E	M	11 45	20	3		No trace on N-S.
		F	43 –				
* Oct	E	e	04 55 50				No trace on N-S.
6	E	M	05 02 45	20	2		
		F	24 –				
* Oct	E	i	04 40 18				Surface waves only.
8	N	e	41 36				
	E	M	45 18	30	6		
	N	M	45 34	30	6		
		F	05 14 –				
Oct	E	i	02 11 02				U.S.C.G.S.: 5°S. 152° E.
11	E	i	30 47				
	NE	e	39 42				
	N	M	47 47	20	4		
	E	M	48 07	25	7		
		F	03 24 –				
Oct	E	e	09 03 47				Surface waves only.
18	N	M	10 06	25	7		U.S.C.G.S.: 42°N 142° E.
	E	M	10 44	25	13		
		F	36 –				
Oct	NE	iP	21 47 08				U.S.C.G.S.: 24°N, 122° E
21	NE	i	49 10			86·8°	T_0 = 21h 34·4m.
	NE	iPP	50 22			9650 km	Formosa shock.
	NE	i	54 13				
	NE	iS	57 46				N-S 5m 50s.
	NE	iPS	59 14				
	E	i	22 00 41				
	E	i	03 25				

King's College Observatory, Aberdeen.

Date	Component	Phase	Time G.M.T. h m s	Period sec.	Amp. μ	Δ° km.	Remarks: Time of origin.
Oct	N	iSS	22 03 36				
21	NE	i	04 37				
Cont'd	E	iSSS	08 58				
	NE	L	13 40				
	E	M	22 41	21	545		Actual displacement 18 mm
	N	M	22 56	20	307		" " 11·2 "
		F	24 53 –				
Oct	NE	iPP	03 45 36			86·8°	
22	NE	iPPP	47 31			9650 Km	
	NE	i	49 26				T_o = 03h. 24·5m.
	E	iSKS	52 46				
	NE	iS	53 01				Repetition of previous.
	N	iPS	53 59				shock. (Formosa)
	NE	eSS	59 35				
	NE	iSSS	04 02 16				
	NE	L	13 36				
	E	M	18 20	18	264		
	N	M	18 40	19	156		
		End in following shock.					
Oct	N	i	05 00 04				
22	E	iPPP	01 09			86·8°	Repetition of previous
	E	iSKS	05 45				shock. (Formosa)
	E	M_1	15 59	24	124		T_o = 05h 43·1m.
	N	M_1	16 15	21	64		
	E	M_2	23 36	16	102		
	N	M_2	23 39	16	60		
		End in following shock.					
Oct	E	i	05 54 26				
22	N	iP	56 10				
	E	e	06 03 00			86·8	Repetition of previous
	N	e	03 45				shock. (Formosa)
	E	iSKS	06 22				
	N	iS	06 46				
	E	i	09 26				
	N	iSS	12 56				
	N	i	19 07				
	NE	L	26 53				
	N	M	30 59	20	134		

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Date	Comp.	Phase	Time G.M.T. h. m. s.	Period sec.	Ampl. μ	Δ° km.	Remarks: Time of origin
Oct 22 Contd	E	M	06 31 12	20	244		
		F	08 00 –				
Oct 22	NE	i	11 34 25				
	N	i	39 55			86·8°	Aftershock of previous Formosa shock.
	N	iSSS	44 38				
	E	i	45 35				
	E	i	51 35				
	NE	M_0	58 46	23 39 (E) 22 10 (N)			
	E	M_R	12 06 34	15 29			
	N	M_R	06 43	16 18			
		F	49 –				
* Oct 22	E	i	13 11 46				
	N	i	22 45				May be a combination of two shocks.
	E	e	24 35				
	NE	e	33 45				
	E	M_1	43 57	18	27		
	N	M_1	46 06	17	18		
	E	M_2	56 41	18	28		
	N	M_2	56 52	16	18		
		F	14 21 –				
* Oct 22	E	i	15 09 40				Repetition of Formosa shock.
	E	e	31 05				
	N	e	32 25				
	E	M	42 10	13	9		
	N	M	42 20	18	16		
		Ends in following shock.					
Oct 22	NE	i	15 46 47				
	E	i	53 08				
	NE	e	16 10 45				
	N	M_1	17 27	21	23		
	E	M_1	17 29	24	44		
	NE	M_2	25 20	15 16	45 (E) 36 (N)		
		Ends in following shock.					
Oct 22	N	i	16 49 50				
	E	e	52 35				
	N	e	53 45				

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Date	Onset	Phase	Time G.M.T. h m s	Period sec.	Amp. μ	Δ_0 km	Remarks: Time of origin.
Oct 21	NE	M	17 02 15	15	16 (E)		
Cont.	F	F	15 –	16	13 (N)		
* Oct 22	E	e	19 25 55				
	N	e	27 55				
	E	M_1	29 55	25	13		
	N	M_1	31 31	17	6		
	E	M_2	38 21	12	8		
	N	M_2	38 30	14	7		
		F	50 –				
Oct 22	NE	e	21 11 45				
	E	e	18 05				
	N	e	19 55				
	NE	M_1	37 41	23	11 (E)		
				22	3 (N)		
	E	M_2	47 07	13	12		
	N	M_2	47 15	15	8		
		F	58 –				
Oct 23	E	e	00 23 40				
	N	e	24 40				
	NE	M	32 –	15	1		
		F	35				
Oct 23	NE	iSKS	01 42 45				N-S 42m 55s.
	E	iS	43 15				
	E	iSS	47 00				
	NE	eL	02 02 –	20	47 (E)		
				22	33 (N)		
	NE	M_1	07 22	16	45 (E)		
				16	24 (N)		
	NE	M_2	15 08				
		F	03 00 –				
Oct 23	NE	i	09 18 25				
	NE	eL	38 40				
	E	M	42 55	21	36		
	N	M	44 15	17	14		
		F	10 24 –				
Oct 23	E	eL	19 05 40				
	NE	M	14 32	13	3		
		F	17 –				

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Date	Comput	Phase	Time G.M.T. h m s	Period sec.	Amp. μ	Δ° Km.	Remarks: Time of origin.
Oct	E	i	04 02 27				
24	NE	eL	23 40				
	NE	M_Q	26 40	22 20	8 (E) 4 (N)		
	NE	M_R	34 20	17 15	14 (E) 5 (N)		
		F	05 05 -				
Oct	E	e	07 13 40				
24		F	25 -				
Oct	NE	e	08 21 40				
24		F	29 -				
Oct	N	iS	12 43 30			86.8°	Repetition of former shock.
25	E	iPS	44 35				
	E	i	47 25				
	N	iSSS	52 45				
	NE	L	13 05 55				
	E	M_Q	07 38	20	30		
	N	M_Q	08 00	20	24		
	E	M_R	15 35	18	40		
	N	M_R	15 41	14	19		
		F	43 -				
Oct	NE	eL	02 42 45				
28	NE	M	51 45	13	3		
		F	57 -				
Oct	E	i	07 16 22				
28	N	i	17 26				
	E	i	20 36				
	E	i	25 32				
	NE	e	08 21 30				
	NE	M	29 40	20	6		
		F	09 08 -				
Oct	E	iPP	07 13 28			94.5°	U.S.C.G.S.: 3°N ; 101°E
31	E	iPPP	15 46			10,500 Km.	T_0 = 06h 56.7m.
	NE	iSKS	20 21				
	N	iS	21 08				
	N	iPS	22 07				
	E	iPPS	22 34				
	NE	iSS	24 26				

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Date	Comp't.	Phase	Time G.M.T. h m s	Period sec.	Ampl. μ	Δ° Km	Remarks: Time of origin
Oct. 31 cont'd.	N	eSSS	07 30 54				
	N	e	39 56				
	NE	eL	45 20				
	NE	M	55 38	20 22	14 (E) 8 (N)		
		F	09 22 –				
Nov. 2	E	iS	22 06 54				
	NE	e	10 36				
	N	i	15 45				
	E	i	17 59				
	E	M	19 35	16	9		
		F	30 –				
Nov. 4	N	e	11 58 30				Obscured by microseisms.
	E	e	12 00 45				
	E	M	05 33	20	8		
	NE	M	07 –12 –				
		F	15 –				
Nov. 6	E	iP	16 51 55			74·4°	U.S.C.G.S.: 47°N, 154°E.
	E	i	53 40			8260 Km	T_o = 16h 40m 26s.
	E	i	56 28				Partially lost through overlapping of trace.
	E	iS	17 01 20				
	E	iPS	02 05				No N-S record available.
	E	i	03 15				
	E	i	06 15				
	E	M	30 42	19	61		
		End observed.					
Nov. 8	N	i	14 02 35				No E-W record available.
	N	eS	05 12				U.S.C.G.S. 54½°N, 160° W.
	N	i	13 44				
	N	eL	21 35				
	N	M	28 48	18	4		
		F	55 –				
Nov 9	E	i	22 28 05				U.S.C.G.S.: 22°S, 68°W.
	NE	eiKS	32 38				
	E	eSS	39 35				
	N	e	45 45				
		F	23 19 –				

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Date	Comp't.	Phase	Time G.M.T. h m s	Period sec.	Amp. μ	Δ°: Km.	Remarks: Time of origin.
Nov 11.		Very	slight movement from 13h. 5m.				– 13h. 10m.
Nov 12	E	iP	08 21 30			71·8°	U.S.C.G.S.: 47°N, 154° E.
	E	i	26 25			7980 Km.	T_o = 08h 10.1 m.
	E	iS	30 50				
	E	iSS	35 50				No N-S record available.
	E	eSSS	38 55				
	E	e	41 55				
	E	L	48 55				
	E	M	58 50	17	16		
		F	09 59 –				
Nov. 17	NE	L M	05 21 – 25				Very slight surface waves.
		F	33 –				
Nov. 18.	NE	iP	09 46 20			68·6°	
	NE	ei	46 49			7620 Km.	
	NE	iPP	48 41				T_o = 09h. 35m. 30s.
	E	iPPP	50 45				
	NE	iS	55 22				N-S, 55m 26s.
	N	i	58 15				
	NE	iSS	59 15				
	E	i	10 02 35				
	N	i	02 53				
	NE	L	06 –				
	N	M	11 10	25	2348		Actual ~~displacement~~ amplitude = 54mm.
	E	M	11 45	25	2130		" " = 49 mm.
		F	15 –				
* Nov. 24	E	i	19 06 02				U.S.C.G.S.: 28°N, 121½° E.
	E	i	09 57				Obscured by microseisms.
	N	i	10 42				
	NE	iS	13 48				
	N	iPS	14 34				
	NE	iSS	19 34				
	NE	iSSS	23 05				
	NE	i	31 27				
	E	M_1	39 10	16	·364		
	N	M_1	39 21	18	289		
	NE	M_2	46 52	13 11	333(E) 268(N)		
		F	21 15 –				

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Date	Comp't	Phase	Time G.M.T. h m s	Period sec.	Amp. μ	Δ° Km.	Remarks: Time of origin.
Nov	N	iS	07 01 59				
26	N	i	02 22				No E-W record available.
	N	iSS	07 54				
	N	iSSS	12 50				
	N	e	24 30				
	N	M_Q	29 52	15	8		
	N	M_R	35-55	12	6		
		F	50 -				
Nov	E	e	15 12 20				
29	N	e	13 50				
	E	M	15 50	19	12		
		F					
Dec	NE	e	07 45 -				Obscured by large
5	N	e	58 -				microseisms.
		F	08 15 -				
Dec	E	i	04 28 32				
8	E		31 30				U.S.C.G.S. 34°S, 56½°E
	NE	iPP	32 42			103°	Obscured by microseisms
	E	iPPP	34 46			11,450 Km	especially in early phases.
	NE	i	39 22				
	NE	iPs	41 42				
	NE	iPPs	42 03				
	E	iSS	47 43				
	NE	iSSS	51 28				
	NE	L	57 42				
	NE	L	05 08 30				
	N	M_1	16 02	20	52		
	E	M_1	19 06	18	120		
	N	M_1	23 00	16	49		
	E	M^2	06 35 48	20	34		By Faith > 180°.
		F	07 15 -				
Dec	E	iP	01 49 43			95-6°	U.S.C.G.S. 17°N, 144½°W.
12	E	i	50 24			8400 Km	
	E	i	52 18				
	E	iS	59 09				
	NE	iPs	59 44				
	NE	i	02 04 44				

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Date	Compt	Phase	Time G.M.T. h m s	Period sec	Amp. μ	Δ Km.	Remarks: Time of origin.
Dec. 12 Cont'd.	NE	L	02 09 43				
	E	M	17 28	24	40		
	E	F	03 – –				
Dec 26	E	e	10 36 20				
	N	e	41 30				
	E	i	41 45				
	NE	M	44 06	E 17 N 20	14		
		F	54 –				
Dec 21	NE	e	09 14 –				U.S.C.G.S.: 26±°N : 100° E.
	E	e	17 25				
	N	M	20 52	20	11		
	E	M	23 54	20	16		
		F	49 –				
Dec 26	E	e	17 04 55				
	N	e	08 50				
	E	M	10 30	17	10		
	N	M	10 05	15	8		
		F	19 –				
Dec 28	E	i	09 32 05				
	E	i	32 42			? 90°	Early phases obscured by microseisms
	E	i	34 20				
	NE	iPP	35 14				
	E	iS	42 30				
	E	iPPS	44 05				
	E	i	45 00				
	E	esss	52 05				
	N	i	55 20				
	E	e	58 35				
	E	M_1	10 09 05	20	38		No definite maximum on N-S component.
	E	M_2	13 20	19	46		
		F	50 –				
Dec 30							Slight disturbance from 23h 23m to 23h 30m on E-W component only.

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