

# SEISMOLOGICAL BULLETIN

KING'S COLLEGE OBSERVATORY, ABERDEEN

JANUARY - MARCH 1961

Lat. 57°10' N. Long. 2°6' W. Height above M.S.L. 12M. Lithologic Foundation: Glacial deposit over boulder clay.

Instruments: Milne-Shaw Seismographs, Photographic Registrations, Two Components.

Compt.		Mass	To	Damping Ratio	Magnification	1" Tilt	Date from which constants apply	
N		1 lb.	10 sec.	20 : 1	150	18.1 mm.	E-W	4.11.60
E		1 lb.	10 sec.	20 : 1	150	18.1 mm.	N-S	4.11.60

  

No	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. "	$\Delta^\circ$ km.	Dir <sup>n</sup> of Motion	Remarks Time of origin								
				h.	m.	s.													
1	5	N N N E N E N E N N N E	iP iPP e eS iPS i iSS eSSS L M <sub>1</sub> M <sub>2</sub> M F	14	17	45	24 20 17	24 19 12	71.5° 7945 Km	N E - + + - + - + + + +	U.S.C.G.S.: 51.6°N, 176.3°W T <sub>o</sub> = 14h 06m 29s iN 27m 18s iE 31m 38s								
												20	33						
												22	15						
												27	08						
												27	40						
												28	33						
												31	48						
												34	23						
												41	00						
												45	24						
												53	48						
57	50																		
15	48																		
2	5	N N E NE	i i i e F	16	14	57				+ - + +	U.S.C.G.S.: 4.1°S, 143.0°E								
												17	34						
												25	17						
												30	28						
												37	-						
3	5	N N E E N E	ePSKS eSS iSSS L M M F	18	30	43	20 22	14 20	144° 16600 Km	+ - -	U.S.C.G.S.: 21.2°S, 169.3°E								
												40	28						
												45	00						
												19	26	30					
												35	43						
												37	19						
20	41																		
4	10	N N N N NE N N N E E	i iPPP i iS iPS iSS eSSS L M <sub>1</sub> M M <sub>2</sub> F	14	35	36	20 19 17	11 20 10	- + - + - + + + -	U.S.C.G.S.: 49.9°N, 156.2°E T <sub>o</sub> = 14h 28m 12s eE 42m 47s									
											37	48							
											39	08							
											42	57							
											43	18							
											47	48							
											50	23							
											58	18							
											15	04	18						
											04	53							
13	00																		
48	-																		
5	11	N N E	e M M F	12	40	21	20 18	5.5 4.5	- - - -	U.S.C.G.S.: 51.8°N, 171.0°W									
											46	38							
											53	27							
											57	-							

## KING'S COLLEGE OBSERVATORY, ABERDEEN

No	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. "	$\Delta^\circ$ km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
				h.	m.	s.					
6	Jan. 12	E	LM	14 57 - 15 05 -					N E	U.S.C.G.S.: 57.4°N, 155.9°W	
7	14	E E	e M F	17 18 45 32 30 35 -	15	1.5			-	N-S component clock under repair	
8	16	E E E E E E E E E E E	iP iPP i i iS iPS iSS eSSS i L M F	07 32 34 34 47 39 39 42 39 42 57 43 49 48 42 52 17 55 12 59 57 08 12 49 09 24 -			84° 9335 Km		+ - - + - - + - - +	U.S.C.G.S.: 36.0°N, 141.1°E T <sub>0</sub> = 07h 20m 06s All shocks on 16th Near east coast of Honshu, Japan	
9	16	E E	e M F	12 09 27 12 49 -	15	5			-	U.S.C.G.S.: 35.7°N, 140.6°E Lost in following shock	
10	16	E E E E E E E	iP i iS i eSSS L M F	12 25 02 35 00 35 17 40 12 52 07 58 47 13 04 45 14 05 -	18	53	84° 9335°		- + + - -	U.S.C.G.S.: 36.2°N, 141.7°E Repeat of No. 8	
11	16	E E	e i F	14 50 21 57 02 15 16 -					-	U.S.C.G.S.: 36.3°N, 141.2°E	
12	16	E E E E E E	i iS e e L M F	16 03 42 04 04 08 44 21 35 28 00 33 27 17 07 -	18	27			+ - + +	U.S.C.G.S.: 36.4°N, 140.6°E	
13	17	E	LM	04 59 - 05 06 -						U.S.C.G.S.: 58.8°N, 135.9°W	
14	20	E E E E E	eS e e L M F	17 28 28 29 44 36 18 45 45 50 58 18 30 -	13	6			- - +	U.S.C.G.S.: 56.4°N, 152.3°E	
15	22	E E E E E E E E E E	iPP iSKP ePPP e iSKKS iSS e e L M F	03 46 13 46 42 48 37 51 49 55 28 04 05 57 20 27 31 22 39 - 46 27 06 09 -			134° 14890Km		+ - + + - + + - - +	U.S.C.G.S.: 11.9°S, 166.2°E	

KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin		
				h.	m.	s.							
16	Jan. 31	N E N E	i i M M F	01	25	35	20 20	27.5 24.5		N E +	U.S.C.G.S.: 55.8°N, 153.9°W Obscured by microseisms		
					28	30							
					28	47							
					31	45							
					50	-							
17	February 4	N E E N	i e M M F	20	00	44	20 17	22 12		+ -	U.S.C.G.S.: 24.0°N, 122.7°E		
					01	44							
					05	00							
					05	10							
18	6	N N N	e e M F	22	49	15	25	9	-	U.S.C.G.S.: 6.4°S, 155.0°E No E-W record available			
					55	35							
					58	29							
19	9	N N N	e i i F	02	48	50			+ + +	U.S.C.G.S.: 28.2°S, 177.4°W No E-W record available Effects slight			
					50	52							
					55	36							
20	12	NE NE E E N NE NE E NE N E N E N	iP ipP i iPP i iS isS iSS i, eSSS L M <sub>1</sub> M <sub>1</sub> M <sub>2</sub> M <sub>2</sub> F <sup>2</sup>	22	05	29		75.5° 8390 Km	-	-	U.S.C.G.S.: 43.7°N, 147.6°E T <sub>0</sub> = 21h 53m 46s eN 08m 34s eN 20m 29s		
					05	51							
					07	34							
					08	14							
					11	45							
					15	09							
					15	29							
					20	24							
					24	29							
					30	35							
					38	21						22	73
					38	38						23	64
					43	19						19	74
46	40	15	60										
Lost in succeeding shock													
21	12	E N E N E N E N	ePPP iPS e i e L M M F	23	42	50	16 16	11 9		+ + +	U.S.C.G.S.: 44.0°N, 147.7°E		
					48	05							
					52	25							
					24	03						34	
					10	30							
					14	-							
22	13	N N E	e M LM	07	58	05	15	3	-	U.S.C.G.S.: 17°S, 173.7°W			
					08	03					54		
					00	-							
23	15	N E N N N NE E N	iS i iSS iSSS i, e M M F	11	06	46	18 14	8 2	75.5° 8390 Km	- + - - -	U.S.C.G.S.: 43.7°N, 147.4°W T <sub>0</sub> = 10h 45m 16s		
					07	34							
					11	39							
					14	44							
					24	29							
					36	39							
					38	05							
					12	07						-	

## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin			
				h.	m.	s.								
24	Feb. 23	E N E	i e M F	05	01	17	15	3		N E +	U.S.C.G.S.: 38.2°N, 142.7°E Effect slight on N-S			
						01						45		
						08						47		
						21						-		
25	26	E NE N E N	e e i e i F	05	05	50				+	? Seismic			
						13						35		
						20						41		
						24						55		
						38						35		
26	26	E E	e M F	06	56	50	20	2.5		+	U.S.C.G.S.: 32.7°S, 111.2°W			
						07						06	50	
						10						-		
27	26	NE E N N E N E NE N E N E N E N	i iP i iPP iPPP i iS iPS i iSS iSSS L M <sub>1</sub> M <sub>1</sub> M <sub>2</sub> M <sub>2</sub> F <sup>2</sup>	18	22	55			82.5° 9280 Km	-	+	U.S.C.G.S.: 31.4°N, 131.2°E  T <sub>0</sub> = 18h 10m 50s  eN 43m 00s		
						23							15	
						25							34	
						26							29	
						28							20	
						30							10	
						33							32	
						34							35	
						37							28	
						39							30	
						42							47	
						50							45	
						57							00	
						19							00	25
													03	45
													07	20
			22	00	-									
28	March 7	N N N N N N N N N N N N	iPKP <sub>1</sub> iPKP <sub>2</sub> i i iPP i i i eSS e M <sub>1</sub> M <sub>2</sub> F <sup>2</sup>	10	30	28			152° 16890 Km	+	-	U.S.C.G.S.: 28.2°S, 175.7°W  No E-W record available		
						31							06	
						32							33	
						33							24	
						34							58	
						41							01	
						44							21	
						51							20	
						55							20	
						11							04	38
													23	10
													51	45
			12	03	34									
				55	-									
29	11	E N	LM LM	02	16	-				-	U.S.C.G.S.: 48.7°N, 154.6°W			
						-34						-		
						17						-		
30	11	E E E	e i i F	09	15	36				+	B.C.I.S.: 11.8°N, 43.0°E No effect on N-S compt.			
						19						21		
						21						52		
						33						-		
31	13	E N E	e e LM F	08	45	40				+	U.S.C.G.S.: 19.2°N, 107.3°W			
						46						38		
						53						-		
						-56						-		
						09						02	-	

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No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
				h.	m.	s.					
March										N E	
32	16	E E E N NE N E	iPPS iSSS i i L M M F	14	15	58 25 46 29 01 32 00 52 50 55 46 57 16 15 16 -	22 27	10 44	+ - + +	U.S.C.G.S.: 8.2°S, 122.0°E	
33	17	E N E	e e M F	21	35	45 44 45 49 00 57 -	20	5.5	+ -	U.S.C.G.S.: 24.3°S, 175.6°W	
34	18	E E NE E E N	i i iSSP L M M F	15	20	38 28 46 41 12 16 12 41 36 40 40 16 55 -	20 20	36 19	- + -		
35	20	E N  E	e LM  M F	06	54	54 54 - -59 - 58 54 07 13 -	18	4.5	+	U.S.C.G.S.: 11.5°N, 86.3°W	
36	20	E	Traces	16	32	- 17 00 -				U.S.C.G.S.: 18.4°S, 175.2°W	
37	21	E E E E E E E	e e M i e L M F	01	05	29 13 42 19 17 26 15 34 37 48 57 53 37 02 07 -	17 17	4 4	+ - - - +	No readable effect on N-S	
38	24	E	Traces	23	44	- -58 -				U.S.C.G.S.: 35.3°N, 140.9°E	
39	28	NE E NE NE NE E NE E E E N	eP iPP i iSKS iPS iPPS iSS iSSS L M <sub>1</sub> M <sub>2</sub> M F	09	51	02 54 52 56 07 10 01 42 04 27 05 02 09 28 14 40 29 37 34 57 42 22 43 07 11 24 -	20 20 25	55 55 43	- - - - - + - - - - +	105.4° 11710 Km iN 54m 57s T <sub>0</sub> = 09h 36m 51s	

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*Library where?*

# SEISMOLOGICAL BULLETIN



KING'S COLLEGE OBSERVATORY, ABERDEEN

APRIL - JUNE 1961

Lat. 57°10' N. Long. 2°6' W. Height above M.S.L. 12M. Lithologic Foundation: Glacial deposit over boulder clay.

Instruments: Milne-Shaw Seismographs, Photographic Registrations, Two Components.

Compt.	Mass	To	Damping Ratio	Magnification	1" Tilt	Date from which constants apply	
N	1 lb.	10 sec.	20 : 1	150	18.1 mm.	E-W	4.11.60
E	1 lb.	10 sec.	20 : 1	150	18.1 mm.	N-S	4.11.60

  

No.	Date	Compt.	Phase	Time G.M.T. h. m. s.	Period sec.	Ampl. "	$\Delta^\circ$ km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
April									
1	1	E E E E E E E E E E	iP iPP iPPP iS iPS i i L M <sub>1</sub> M <sub>2</sub> F <sup>2</sup>	15 27 39 29 39 30 31 35 08 35 46 37 34 39 12 46 42 52 38 57 05 16 52 -	10 12	33 38	53.1° 5900Km	N E - + + - - + +	U.S.C.G.S.: 39.6°N, 77.7°E T = 15h 18m 23s No N-S record available Clock under repair
2	4	E E E E E	eS eSS e i M F	10 03 32 07 16 13 44 14 51 19 13 56 -	18	42		+ + + -	U.S.C.G.S.: 40.1°N, 77.8°E
3	6	E E	i e F	02 04 46 09 06 15 -				- +	U.S.C.G.S.: 39.6°N, 77.8°E
4	6	E E E E E	eS eSS i L M F	18 25 50 32 40 36 00 45 50 49 40 19 01 -	18	2		+ - -	U.S.C.G.S.: 27.8°N, 56.7°E
5	7	E E E	e e M F	21 42 40 46 50 49 15 22 02 -	12	1.5		+ +	U.S.C.G.S.: 39.3°N, 73.0°E
6	8	E E E E E E E E	iSKKS i ePS SS eSSS L M <sub>1</sub> M <sub>2</sub> F <sup>2</sup>	18 26 13 27 47 28 37 34 55 38 45 54 45 19 02 57 07 23 20 05 -	20 18	8 9	113° 12555 Km	- - + + -	U.S.C.G.S.: 38.2°S, 72.7°W

## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. "	$\Delta^\circ$ km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
				h.	m.	s.					
7	April 9	E E E	iS e M F	07	44	30 55 08 26	16	3.5		N E - +	U.S.C.G.S.: 36.5°N, 121.3°E
8	9	E E E E E E E E E	eP ePPP iSKKS i eSS eSSS L M <sub>1</sub> M <sub>2</sub> F <sub>2</sub>	15	47	52 55 26 01 35 04 35 08 25 17 45 23 25 30 45 17 19	20 17	30 96		86.4° 9600 Km + + - + + +	U.S.C.G.S.: 24.1°N, 122.2°E
9	12	E E E E	eS eSS L M F	22	42	28 49 05 01 37 09	22	3.5		+ +	U.S.C.G.S.: 13.1°N, 88.9°E
10	13	N N N N N N N	i iS eSS i L M <sub>1</sub> M <sub>2</sub> F <sub>2</sub>	16	50	38 23 54 54 58 41 02 - 06 19 11 27 18 06	19 16	77 36		+ + -	U.S.C.G.S.: 40.1°N, 77.8°E
11	23	E E E	e e M F	06	00	27 02 15 35 29	12	2.5		+ +	U.S.C.G.S.: 26.2°N, 129.8°E No N-S record available
12	23	N E N N N E N E N E N E N E N	iP iPP i iS iPS i eSS eSSS L M <sub>1</sub> M <sub>1</sub> M <sub>2</sub> M <sub>2</sub> F <sub>2</sub>	09	13	27 29 27 07 43 48 17 24 31 24 43 27 47 22 47 49 53 52 54 29 11 03	20 17 15 15	25 20 21 15		75.5° 8390 Km + + + + + + + + + + + + +	U.S.C.G.S.: 44.6°N, 150.2°E T <sub>0</sub> = 09h 01m 44s
13	23	E N	LM LM	17	35	- -45 - -48 -					U.S.C.G.S.: 44.5°N, 150.1°E
14	25	E	LM	02	00	- -20					U.S.C.G.S.: 44.6°N, 150.0°E No N-S effect.

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No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. "	$\Delta^\circ$ km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
				h.	m.	s.					
15	April 29	E E E E E E	i iP i iS L M F	09	31	16 32 35 35 36 37 41	14	83	14.5° 1610Km	N E + - + +	U.S.C.G.S.: 71.3°N, 7.4°W No N-S record available T <sub>o</sub> = 09h 29m 07s
16	30	E E E E E	i iP i L M F	07	34	54 56 25 23 54 -	16	14.5		+ + +	U.S.C.G.S.: 52.0°N, 31.9°W
17	30	E E E	e L M F	11	51	31 31 50 -	16	4		+	U.S.C.G.S.: 44.6°N, 149.7°E
18	May 2	E E N E N	e i i M M F	03	15	55 20 30 04 25 -	15 10	3 1.5		- -	U.S.C.G.S.: 71.2°N, 6.9°W
19	2	NE E N E E E E N	eSKKS iSS i eSSS e L M M F	23	15	38 32 25 35 40 42 29 50 -	17 18	6 4.5	150.6°	- - - +	U.S.C.G.S.: 27.8°S, 176.5°W
20	5	E E E E N	e e e M LM F	14	20	50 10 25 00 - -	15	2.5	150.6° 16735 Km	+ + +	U.S.C.G.S.: 27.8°S, 176.1°W
21	6	E N	LM LM F	16	14	- - - -					
22	7	N E N E N	iS iSS i M M F	15	46	51 14 01 09 39 -	13 9	10 3.5	14.4° 1600 Km	- + +	U.S.C.G.S.: 71.2°N, 7.1°W
23	8	N E	M M F	20	17	58 09 -	10 18	3.5 5.5			U.S.C.G.S.: 24.3°S, 69.7°W



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No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
				h.	m.	s.					
24	May 13	E E	e M F	16 41 42 48 27 17 05 -	20	2.5		N E +	U.S.C.G.S.: 43.4°N, 147.8°E No effect on N-S		
25	14	E E NE E N	e eS L M M F	15 11 28 13 29 14 45 15 27 16 30 27 -	15 10	3 2	13.1° 1455 Km	- -	U.S.C.G.S.: 67.7°N, 18.4°W		
26	14	E N N E	e e M M F	15 43 59 44 43 45 24 45 33 16 02 -	15 15	2.5 4		+ -	U.S.C.G.S.: 67.7°N, 18.4°W		
27	16	N N N	eS e M F	22 08 22 32 10 38 27 54 -	17	1		+ -	U.S.C.G.S.: 30.0°N, 132°E No E-W record available		
28	17	N N N N N N N N	iP iPPP eS ePS e e L M F	19 40 38 45 19 49 54 50 44 53 26 58 18 20 10 15 20 36 47 -	18	2	71.2° 7910 Km	+ + + + - -	U.S.C.G.S.: 52°N, 173.9°E T <sub>0</sub> = 19h 29m 21s		
29	19	NE E N	e M LM F	17 18 00 25 35 22 - -34 - 59 -	25	3			U.S.C.G.S.: 24.1°N, 123.4°E		
30	22	E N E N E	e e M <sub>1</sub> M <sub>1</sub> M <sub>2</sub> F	15 03 35 05 17 10 35 12 35 14 47 50 -	20 17 17	2.5 2 4		+ +			
31	22	NE E N N E NE E N N E	ePKP eSKP e eSKKS e, iSS L L M M F	17 52 00 55 30 56 22 18 02 12 03 20 14 10 43 00 44 20 53 35 57 40 19 30 -	22 23	3 5	146.5° 16280 Km	+ + - - - +	U.S.C.G.S.: 22.8°S, 176.1°W eN 55m 20s		
32	23	NE E N E E N NE	iP i iPPP iS iM L M F	02 51 15 51 55 52 15 56 18 56 59 58 55 03 06 00 04 39 -	12 15	31 65 E) 37 N)	28.9° 3320 Km	- + - -	U.S.C.G.S.: 36.4°N, 28.3°E iN 56m 25s		

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No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. $\mu$	$\Delta^\circ$ km.	Dir <sup>n</sup> of Motion		Remarks Time of origin	
				h.	m.	s.							
MAY													
33	31	NE	eS	14	39	18				N	E	U.S.C.G.S.: 29.8° N, 114.0° W eN 39m 45s	
		E	iPS		39	48				+	+		
		NE	i		49	38				-	+		
		E	L		54	33				-	-		
		NE	e		57	35					+		
		NE	M <sub>1</sub>	15	04	30	15	2.5					
								1.5			E N		
		N	M <sub>2</sub>		06	36	12	2.3					
		E	M <sub>2</sub>		06	53	12	2.3					
			F		29	-							
JUNE													
34	1	NE	iP	23	39	12			57.7°			B.C.I.S.: 10.3° N, 39.9° E eN 47m 02s	
		NE	e, iPP		41	17			6410 Km	-	-		
		NE	e		42	37				-	-		
		E	iS		47	10				-	+		
		E	e		48	38				-	+		
		NE	e		53	28				-	-		
		N	L		57	45							
		E	M	24	06	58	15	26					
		N	M		08	24	15	10					
		N	F	25	51	-							
35	2	NE	e, iP	05	00	58			57.4°			U.S.C.G.S.: 9.8° N, 40.0° E	
		N	ePP		03	09			6380 Km	+	-		
		E	e		04	31				-	+		
		NE	iS		08	54				-	+		
		N	i		11	00				-	+		
		E	iSS		12	52					+		
		E	eSSS		14	42					-		
		NE	L		24	20							
		E	M		33	45	15	19					
		N	M		35	26	11	10					
		N	F	07	15	-							
												Several succeeding minor shocks in same locality.	
36	2	E	e	07	28	30							
		NE	e		36	40					-		
		E	M		41	49	15	1.5			+		
		N	M		46	25	15	1					
			F	08	11	-							
37	3	N	i	01	29	30						U.S.C.G.S.: 56.1° N, 164.8° E	
		N	e		33	10					+		
		N	M		48	35	20	2					
			F	02	06	-							
38	4	N	e	18	48	40						? Seismic	
		N	M		19	39	25	4			+		
			F		20	12							
39	7	N	oP	14	25	45			62.2°				
		N	eS		29	05			6910 Km	+	-		
		N	eS		34	19				-	-		
		N	e		41	25				+	+		
		N	L		48	23				-	-		
		N	M		54	30	20	2.5					
			F	15	19	-							
40	9	N	e	13	03	15						? Seismic	
		N	e		27	30				+	+		
		N	L		35	-							
		N	M		41	46	15	2.5					
		N	F		49	-							

KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T. h. m. s.	Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
JUNE									
41	10	N	e	21 37 20				N E	
		N	M	45 25	15	1.5		-	
		N	F	22 06 -					
42	11	N	e	05 15 20		49.2°		-	B.C.I.S.: 28.3°N, 54.7°E
		N	iP	19 15		54.65Km		+	Iran shock
		N	e	21 08				-	
		N	i	25 46				-	
		N	iS	26 20				-	
		N	i	26 30				+	
		N	i	30 05				-	
		N	iSSS	30 55				+	
		N	L	33 -					
		N	M <sub>1</sub>	36 50	27	98			
		N	M <sub>2</sub>	41 22	22	98			
		N	F	07 32 -					
43	11	N	Traces	07 36 -					
				09 00 -					
44	11	N	iS	12 47 20				-	B.C.I.S.: Repeat of Iran shock
		N	L	57 30					
		N	M	13 04 52	16	3.5			
		N	F	28 -					
45	11	N	LM	14 23 30					
		N	M	38 -					
		N		31 20	17	2			
46	14	N	e	20 52 30				-	
		N	e	21 05 15				-	
		N	L	09 20					
		N	M	15 25	15	1.5			
		N	F	35 -					
47	16	N	iS	10 52 30				-	
		N	i	54 05				-	
		N	eSS	56 55				+	
		N	F	11 06 -					
48	19	N	e	02 39 15				-	
		N	L	46 20					
		N	M	49 22	20	2.5			
		N	F	52 -					
49	20	N	LM	03 54 -					
				04 08 -					
50	23	N	e	09 16 15				+	
		N	e	24 10				-	
		N	e	28 15				+	
		N	L	33 25					
		N	M	38 41	14	5.5			
		N	F	10 08 -					
51	25	N	e	17 37 25				-	
		N	LM	40 10					
				48 -					Very slight effect
			F	18 12 -					
52	26	N	e	15 16 06				-	U.S.C.G.S.: 52.4°N, 174.5°E
		N	M <sub>1</sub>	32 20	15	1.5			
		N	M <sub>2</sub>	44 27	15	1.5			
		N	F <sub>2</sub>	58 -					

## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
				h.	m.	s.					
JUNE											
53	27	N	eP	07	15	15			N E		
		N	ePP		18	07			-		
		N	e		19	45		73°	+	U.S.C.G.S.: 27.8°N, 99.4°E	
		N	iS		24	14		8110 Km	-	T <sub>o</sub> = 07h 03m 47s	
		N	eSS		29	27			+		
		N	eSSS		32	37			-		
		N	L		38	06			-		
		N	M <sub>1</sub>		43	12	22	8			
		N	M <sub>2</sub>		45	25	20	8			
			F <sup>2</sup>	08	43	-					
54	28	N	e	16	55	20			-		
		N	M	17	01	30	20	3		? Seismic	
			F		10	-					
A.E.M. Geddes											
Natural Philosophy Department, The University, Aberdeen.											

# SEISMOLOGICAL BULLETIN

KING'S COLLEGE OBSERVATORY, ABERDEEN

JULY - SEPTEMBER, 1961

Lat. 57°10' N. Long. 2°6' W. Height above M.S.L. 12M. Lithologic Foundation: Glacial deposit over boulder clay.

Instruments: Milne-Shaw Seismographs, Photographic Registrations, Two Components.

Compt.		Mass	To	Damping Ratio	Magnification	1" Tilt	Date from which constants apply	
N		1 lb.	10 sec.	20 : 1	150	18.1 mm.	E-W	4.11.60
E		1 lb.	10 sec.	20 : 1	150	18.1 mm.	N-S	4.11.60

  

No.	Date	Compt.	Phase	Time G.M.T. h. m. s.	Period sec.	Ampl. "	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
1	July 6	N	ePKP	22 28 58	23	25	144° 16000Km	N E + - + + - - -	U.S.C.G.S.: 20.0°S, 169.4°E  T <sub>0</sub> = 22h 09m 27s
		N	ePP	32 08					
		N	ePPP	35 26					
		N	ePSKS	42 21					
		N	e	49 08					
		N	eSSS	56 35					
		N	e	23 05 08					
		N	eL	18 53					
		N	M	30 40					
2	7	N	ePP	13 31 32	21	7.5	126° 1400Km	- + - + + +	U.S.C.G.S.: 5.7°S, 149.7°E  T <sub>0</sub> = 13h 10m 56s
		N	e	32 12					
		N	eSKS	37 03					
		N	iPS	41 28					
		N	ePPS	43 37					
		N	eSS	48 40					
		N	eSSS	53 42					
		N	L	14 13 -					
		N	M	20 09					
N	F	15 27 -							
3	8	N	ePKP	02 55 04	20	2.5	144° 16000Km	- - - + - +	U.S.C.G.S.: 20.4°S, 169.0°E  T <sub>0</sub> = 02h 35m 21s
		N	ePP	58 04					
		N	eSKS	03 02 12					
		N	ePSKS	08 05					
		N	e	10 32					
		N	eSS	17 22					
		N	L	49 12					
		N	M	04 02 25					
		N	F	54 -					
4	8	N	ePKP	15 54 12	20	2.5	144° 16000Km	- - + -	U.S.C.G.S.: 20.2°S, 168.6°E
		N	eSKP	57 48					
		N	e	16 00 19					
		N	e	11 12					
		N	L	53 -					
		N	M	59 32					
N	F	17 58 -							
5	11	N	eS	09 55 02	20	4	86° 9555 Km	+ + +	U.S.C.G.S.: 8.3°N, 93.3°E
		N	e	58 01					
		N	eSS	10 01 04					
		N	L	14 42					
		N	M	22 12					
		N	F	59 -					



## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
				h.	m.	s.					
6	12	N N	e e F	13	56	00				N - +	U.S.C.G.S.: 45.2°N, 151.0°E  Very slight
				14	12	47					
				21	-	-					
7	12	N N	e e F	15	26	58				- +	? Seismic
				28	05	-					
				34	-	-					
8	13	N N	e M F	22	30	25	20	2.5		-	U.S.C.G.S.: 25.2°S, 179.7°E
				33	12	-					
				42	-	-					
9	15	N N	L M F	01	10	10	15	1.5		-	U.S.C.G.S.: 13.1°N, 120.4°E
				19	10	-					
				26	-	-					
10	17	N N N	e L M F	17	04	20	15	3		-	U.S.C.G.S.: 2.4°S, 141.5°E
				10	00	-					
				17	32	-					
11	18	N N N N N N N N N N N N	e iP i i ePP ePPP iS iPS eSS eSSS L M F	14	16	13	23	113	82.2° 9355 Km	+ - - + - + + + - + -	U.S.C.G.S.: 29.4°N, 131.6°E
				16	16	-					
				16	24	-					
				17	00	-					
				19	21	-					
				21	29	-					
				26	39	-					
				27	34	-					
				32	17	-					
				35	53	-					
				43	12	-					
				52	06	-					
				17	33	-					
12	19	N N	e e F	05	59	18				- +	U.S.C.G.S.: 29.2°N, 131.4°E
				06	03	05					
				07	-	-					
13	19	N N N N	e e L M F	12	22	-	15	1.5		- - - -	U.S.C.G.S.: 29.6°N, 131.5°E  Disturbed and uncertain by shaking of building.
				26	12	-					
				45	15	-					
				56	42	-					
14	19	N N N N N N	eP e eS eSS L M F	23	06	19	15	1.5	24.5° 2720 Km	+ + + - - -	B.C.I.S.: 38.2°N, 20.6°E
				07	22	-					
				10	38	-					
				11	52	-					
				13	06	-					
				15	13	-					
				58	-	-					
15	20	N	LM	07	41	-				-	U.S.C.G.S.: 10.3°N, 121.9°E Traces
				-	56	-					
16	21	N N	e LM	19	26	-				-	U.S.C.G.S.: 30.0°N, 131.4°E
				42	-	-					
				-55-	-	-					
17	22	N N N N	e e e i F	14	01	00				- + - - -	U.S.C.G.S.: 36.8°N, 70.3°E
				07	00	-					
				13	06	-					
				15	56	-					
				24	-	-					

## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. "	$\Delta^\circ$ km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
				h.	m.	s.					
18	July 23	N	ePKP	14	23	15		144 <sup>o</sup>	N E	U.S.C.G.S.: 18.5 <sup>o</sup> S, 168.2 <sup>o</sup> E	
		N	eSKP		26	50		16000Km	-		
		N	e		28	15			+		
		N	ePSKS		36	25			+		
		N	ePPS		38	57			+		
		N	e	15	10	00			+		
		N	L		20	35					
		N	M <sub>1</sub>		24	00	23				
		N	M <sub>2</sub>		40	00	15	1.5			
		N	F	16	25	-					
19	23	N	iPKP	22	10	26		140.6 <sup>o</sup>	+	U.S.C.G.S.: 18.3 <sup>o</sup> S, 168.3 <sup>o</sup> E T <sub>o</sub> = 21h 51m 07s	
		N	i		10	51		15620Km	+		
		N	iPP		13	31			-		
		N	iSKP		14	13			-		
		N	i		14	45			-		
		N	iSKKS		20	18			+		
		N	i		22	15			+		
		N	iPSKS		23	40			-		
		N	iPPS		25	50			+		
		N	iSS		32	14			+		
		N	iSSS		37	55			-		
		N	L		58	15					
		N	M <sub>1</sub>	23	04	19	25	104			
		N	M <sub>2</sub>		09	32	23	87			
		N	F	26	03	-					
20	28	N	iP	01	17	59			+	U.S.C.G.S.: 2.2 <sup>o</sup> S, 77.1 <sup>o</sup> W No definite maximum Deep focus.	
		N	iS		27	58			-		
		N	i		29	00			+		
		N	eSS		32	44			-		
		N	F		?	?					
21	28	N	ePKP	06	31	20		144 <sup>o</sup>	-	U.S.C.G.S.: 18.6 <sup>o</sup> S, 167.7 <sup>o</sup> E T <sub>o</sub> = 06h 11m 45s No definite maximum	
		N	e		35	50		16000 Km	-		
		N	eSKKS		40	55			+		
		N	e		43	35			+		
		N	eSS		53	30			+		
		N	F	08	37	-			+		
22	28	N	eL	10	56	-				U.S.C.G.S.: 20.0 <sup>o</sup> N, 109.1 <sup>o</sup> W	
		N	M	11	05	12	15	2			
		N	F		33	-					
<u>AUGUST</u>											
23	1	N	ePP	06	01	22			+	U.S.C.G.S.: 9.8 <sup>o</sup> S, 160.5 <sup>o</sup> E	
		N	iPKS		02	27			+		
		N	e		05	49			-		
		N	e		12	57			+		
		N	e		25	17			-		
		N	L		44	27					
		N	M		51	17	23	14			
		N	F	07	25	-					
24	1	N	eP	07	37	20			-	U.S.C.G.S.: 56.8 <sup>o</sup> S, 25.1 <sup>o</sup> W	
		N	e		50	10			+		
		N	i	08	03	07			+		
		N	L		16	24			+		
		N	M		24	34	18	11			
		N	F	09	00	-					

# SEISMOLOGICAL BULLETIN

## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl.	$\Delta^\circ$ km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
				h.	m.	s.					
25	Aug 1	N	M F	10 42 25 11 07 -	19	2.5			N E	U.S.C.G.S.: 57.1°S, 26.1°W Early part obscured by overlapping	
26	4	N	LM	07 53 - -59-						U.S.C.G.S.: 42.7°N, 144.8°E	
27	4	E N E	i i M F	18 48 56 49 48 53 25 19 04 -	15	1.5			+ -	U.S.C.G.S.: 34.8°N, 38.7°W	
28	8	N E N N NE E NE N N E	eP e ePP ePPP i, eS ePS e L M M F	12 29 44 29 57 32 23 34 00 39 02 39 44 47 07 58 35 13 02 09 04 57 14 20 -	18 16	7 4	71.5° 7945 Km		- + - + + - + + - +	U.S.C.G.S.: 50.9°N, 170.7°W  Two shocks superposed	
29	11	NE N E NE NE NE E E E N NE E N	iP i iPP i iS i iPS iSS SSS e i L M M F	16 03 20 05 42 06 26 09 06 13 03 13 26 13 54 18 10 21 26 26 03 27 30 32 00 39 26 41 53 18 50 -	22 19	89 96	76.1° 8455 Km		- - + + + - - + - + - + + + + + + + + + + + + + + + + +	U.S.C.G.S.: 42.9°N, 145.1°E  T <sub>0</sub> = 15h 51m 34s	
30	11	E N N E N	e e e eL LM	23 40 10 40 40 42 56 48 06 46 - -56 -					+ - - +	U.S.C.G.S.: 2.8°S, 122.1°E	
		E	M F	54 16 58 -	15	1.5					
31	15	N E NE	eL e M F	00 40 25 44 35 50 10 01 15 -	20	2.5			+ +	U.S.C.G.S.: 20.3°S, 169.4°E	
32	15	E N NE E N	e e L M M F	19 51 54 52 14 56 15 20 00 05 05 15 16 -	20 18	3 2			+ -	U.S.C.G.S.: 32.8°N, 142.4°E	



## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. "	$\Delta^\circ$ km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
				h.	m.	s.					
33	Aug. 17	NE	iP	21	27	50			71.5°	N E	U.S.C.G.S.: 46.3°N, 149.3°E  T <sub>o</sub> = 21h 16m 32s
		N	P <sub>c</sub> P		28	12			79.45 Km	+ +	
		N	iPP		30	31				+ +	
		N	e		31	45				+ +	
		NE	iS		37	09				+ +	
		NE	iPS		37	45				- +	
		E	i		43	00				+ +	
		E	e		45	43				-	
		E	L		53	-					
		E	M		55	21	15	3			
N	L		22	01	25						
	M		09	00	16	3.5					
34	19	NE	iP	05	21	37			88°	- -	U.S.C.G.S.: 10.7°S, 71.0°W  Deep focus T <sub>o</sub> = 05h 09.9m  iN 35m 18s
		NE	i		23	44			9780 Km	+ -	
		E	iPP		25	40				+ -	
		NE	iSKS		31	05				+ +	
		NE	iS		31	30				- -	
		NE	i		33	36				+ +	
		E	i		35	08				- +	
		E	iSS		37	40				+ +	
		E	iSSS		41	08				+ +	
			F	Lost in succeeding shock							
35	19	N	i	05	45	49			81°	-	U.S.C.G.S.: 36°N, 136.5°E  iN 56m 03s  T <sub>o</sub> = 05h 33m 31s
		E	i		47	38			9060 Km	+ +	
		E	iS		55	55				+ -	
		N	iPS		56	40				+ -	
		E	i		57	23				- -	
		NE	iSS		06	01	15			- -	
		NE	L		15	-					
		N	M <sub>1</sub>		19	57	19	59			
		E	M <sub>1</sub>		20	10	17	42			
		E	M <sub>2</sub>		22	08	15	48			
N	M <sub>2</sub>		23	53	14	47					
	F		07	55	-						
36	23	N	e	04	41	06					U.S.C.G.S.: 38.7°N, 68.7°E
		E	e		42	00					
		NE	M		44	06	20	2			
		E	M		44	55	20	2.5			
37	27	N	iPP	17	06	14				+ +	U.S.C.G.S.: 18.3°N, 146.6°E
		E	e		07	17				+ +	
		NE	e, i		11	17				+ +	
		N	i		17	19				+ +	
		N	M		31	17	15	1.5			
		E	M		34	29	15	2			
38	31	NE	iP <sub>I</sub>	02	00	22			87.5°	- -	U.S.C.G.S.: I 10.4°S, 70.9°W II 10.4°S, 70.9°W Two shocks superposed.  Both deep focus iE 10m 18s
		NE	iP <sub>II</sub>		02	29			9720 Km	+ +	
		NE	iP <sub>II</sub>		08	55				+ -	
		NE	iS <sub>I</sub>		09	54				+ +	
		N	i		10	15				- +	
		NE	iP <sub>II</sub>		11	05				+ +	
		NE	i		13	51				+ +	
		NE	iSKS <sub>II</sub>		18	25				+ +	
		E	iS <sub>II</sub>		18	48	10	139			
		N	iS <sub>II</sub>		18	55	10	111			

## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T. h. m. s.	Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
38	Aug 31	(contd.)						N E	
		E	iSP <sub>II</sub>	02 19 45				+ -	iN 19m 53s
		NE	i	22 33				+ -	iN 22m 37s
		N	iSS <sub>II</sub>	24 50				+	
		E	i	28 44					
		N	M	32 19	16	36		+	
		E	M	32 22	19	67			
			F	04 31 -					
SEPTEMBER									
39	1	N	e	00 29 15		117°		-	U.S.C.G.S.: 59.3°S, 27.3°W
		N	iPP	29 26		13000Km		+	
		N	iPPP	31 47				+	
		N	iSKS	34 52				-	T <sub>0</sub> = 00h 09m 35s
		N	iPS	39 07				-	
		N	i	40 00				-	No E-W result available
		N	eSS	45 57				-	
		N	eSS <sub>2</sub>	50 11				-	
		N	L	01 06 10					
		N	M <sub>1</sub>	11 52	20	14			
		N	M <sub>2</sub>	18 16	20	14			
			F	02 19 -					
40	1	E	iS	19 12 30			79°	-	U.S.C.G.S.: 13.5°N, 92.5°W
		E	iPS	13 30			8780Km	+	
		E	iSS	17 36				+	T <sub>0</sub> = 18h 50.6m
		E	eSSS	21 23				+	
		N	e	26 08				+	
		N	L	35 30					
		N	M	42 25	15	3			
		N	M	44 42	15	1.5			
			F	20 02 -					
41	5	N	eP	02 42 45			22.8°	-	U.S.C.G.S.: 80.0°N, 2.3°W
		E	e	45 40			2540 Km	+	
		NE	eS	46 58				+	
		N	e	48 10				+	
		N	L	49 15					
		N	M	50 15	15	1.5			
		E	M	54 40	15	1			
			F	03 04 -					
42	5	NE	eS	06 29 03				+	
		NE	e	33 15				+	
		E	i	36 23				-	
		N	M	44 40	15	1.5		-	
			F	59 -					
43	5	N	i	11 45 03				+	U.S.C.G.S.: 59.8°N, 150.6°W
		E	iP <sub>c</sub> P	45 18				+	
		N	e	47 18				-	
		NE	e, iS	53 10				+	
		E	iPS	53 39				-	
		NE	eSS	57 14				+	
		E	e	12 01 08				+	
		N	L	06 00				-	eN 01m 18s
		NE	M	13 43	15	1.5			
			F	53 -					

## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T. h. m. s.	Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
44	Aug. 8	E N E E N	e e L M M F	05 20 20 23 20 24 30 27 16 27 38 50 -	16 16	2 2		N E + + + -	U.S.C.G.S.: 51.8°N, 131.2°E
45	8	N N N N N N N N N N	eP e ePP iSKS iSKKS ePS i e iSSS L M F	11 41 27 44 56 45 52 51 38 52 52 55 41 57 36 12 00 40 05 56 18 40 27 33 14 13 -	23	98	115° 12780 Km	- - - - - + - - -	U.S.C.G.S.: 56.1°S, 27.3°W No E-W record available
46	15	N N N	eS L M F	01 58 03 02 06 18 10 08 31 -	20	33		-	B.C.I.S.: 34 1/4°N, 33 1/2°E
47	17	E N NE E N	i e e, i M M F	09 19 38 20 25 28 07 37 50 37 54 50 -	17 17	16 20		+ - - +	U.S.C.G.S.: 23.9°N, 122.2°E
48	19	NE E NE NE	iSKS i ePPS eSSS F	02 47 42 48 17 51 37 57 52 03 30 -				+ + - - +	U.S.C.G.S.: 20.3°S, 63.2°W Deep focus
49	19	E E N E E E E E	e i iSKS e L M <sub>1</sub> M <sub>2</sub> F <sub>2</sub>	10 02 08 08 22 09 12 17 12 23 30 26 42 29 18 34 18 45 -	20 20 18	2.5 2.5 2		- - + - - -	iN 08m 27s eE 09m 18s Effect on N-S slight
50	20	E N E N	L L M M F	20 06 10 08 16 14 15 14 42 33 -	22 25	6.5 5			U.S.C.G.S.: 3.6°S, 150.9°E
51	24	NE N	LM M F	22 26 30 -43- 32 28 44 -	20	2.5			U.S.C.G.S.: 33.3°N, 141.3°E

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# SEISMOLOGICAL BULLETIN

KING'S COLLEGE OBSERVATORY, ABERDEEN

OCTOBER - DECEMBER, 1961

Lat. 57°10' N. Long. 2°6' W. Height above M.S.L. 12M. Lithologic Foundation: Glacial deposit over boulder clay.

Instruments: Milne-Shaw Seismographs, Photographic Registrations, Two Components.

Compt.	Mass	To	Damping Ratio	Magnification	1" Tilt	Date from which constants apply	
N	1 lb.	10 sec.	20 : 1	150	18.1 mm.	E-W	4.11.60
E	1 lb.	10 sec.	20 : 1	150	18.1 mm.	N-S	4.11.60

  

No.	Date	Compt.	Phase	Time G.M.T. h. m. s.	Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin
1	Oct. 2	N N N N N	iP eS i L M F	07 27 24 31 54 33 07 37 30 41 42 55 -	13	5	25.8° 2865 Km	N E + - +	U.S.C.G.S.: 37.2°N, 22.2°E
2	2	N N N	e e LM	08 31 20 42 25 53 20 09-00 -				+ -	U.S.C.G.S.: 51.4°N, 179.4°E
3	5	E N NE	e e M F	23 21 07 22 12 30 22 36	15	2		+ +	U.S.C.G.S.: 24.0°N, 121.9°E
4	18	NE E E E N E N E N	eSKS iS iPS iPPS iSS L M <sub>1</sub> M <sub>1</sub> M <sub>2</sub> F <sup>2</sup>	17 17 07 18 52 20 49 21 38 26 29 46 18 56 25 56 37 18 02 15 19 21 -	20 17 17	11 22 20	108° 12000Km	- + - - + - +	U.S.C.G.S.: 36.7°S, 72.6°W eN 19m 15s T <sub>0</sub> = 16h 52.6m
5	23	N NE E N NE E	i e L M <sub>1</sub> M <sub>2</sub> M <sub>2</sub> F	15 25 33 30 20 33 55 37 45 40 10 40 33 50 -	27 20 20	24 16 16		- -	U.S.C.G.S.: 3.5°N, 126.4°E
6	26	E N NE E N	e e L M M F	01 33 44 41 53 47 - 54 10 54 20 02 07 -	19 19	10 10		- -	U.S.C.G.S.: 3.1°S, 147.4°E

# SEISMOLOGICAL BULLETIN

## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt.	Phase	Time G.M.T.			Period sec.	Ampl. μ	Δ° km.	Dir <sup>n</sup> of Motion	Remarks Time of origin	
				h.	m.	s.						
7	Oct. 26	N NE NE N E	e e L M M F	16	11	10	19 19	5 5		N E + - +	U.S.C.G.S.: 0.4°S, 98.6°E	
					21	48						
					26	10						
					31	13						
					34	23						
	43	-										
8	29	N N N	e L M F	09	39	17	20	13.5		-	U.S.C.G.S.: 49.0°N, 128.7°W	
					43	05						
					47	35						
					57	-						
9	30	N	Traces	02	52	-				U.S.C.G.S.: 42.3°N, 126.7°W		
				03	03	-						
10	30	N N N N N N	i i i e L M F	08	47	11	15	8		- + + -	B.C.I.S.: 74°N, 52°E Russian Megaton Explosion	
					48	36						
					49	06						
					49	36						
					52	24						
					54	06						
	59	-										
11	November 3	N N	i e F	00	28	54				+ -	U.S.C.G.S.: 54.5°N, 162.3°E	
					36	50						
					49	-						
12	6	N	Traces	06	43	-				U.S.C.G.S.: 45.7°N, 147.9°E		
					56	-						
13	12	E N E E N	e eL eL M M F	02	48	15	15 16	1.5 2		+ + +	U.S.C.G.S.: 8°N, 29.5°E	
					51	00						
					51	40						
					56	10						
					56	55						
					03	08						-
14	14	NE N E N E	iS e eSS M M F	05	04	30	25 20	6.5 2.5		- - -	U.S.C.G.S.: 7.3°N, 82.4°W	
					07	20						
					08	55						
					18	00						
					20	15						
	46	-										
15	15	NE N N NE E N E E NE NE N E E	iP i ePP iS iPS i eSS i e L M <sub>1</sub> M <sub>1</sub> M <sub>2</sub> M <sub>2</sub> F	07	29	00	22 20 20 15	33 27 44 18	75.9° 8435 Km	- - - - - + + - - + +	U.S.C.G.S.: 43.1°N, 145.1°E  iE 32m 09s  T <sub>0</sub> = 07h 17m 15s	
					31	17						
					32	03						
					38	42						
					39	25						
					40	45						
					43	50						
					48	20						
					53	-						
					58	-						
					08	03						55
					05	10						
					07	20						
					09	00						
	11	-										

## KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt	Phase	Time G.M.T.			Period sec.	Ampl. μ	Δ° km.	Direction of Motion	Remarks Time of Origin
				h.	m.	s.					
16	Nov. 18	E	Traces	23	03	-			N E	U.S.C.G.S.: 23.7 <sup>N</sup> , 121.8 <sup>E</sup>	
17	19	E	Traces	04	32	-				U.S.C.G.S.: 18.4 <sup>S</sup> , 167.4 <sup>E</sup>	
18	20	E	iP	18	05	34				- B.C.I.S.: 30.75 <sup>N</sup> , 40.5 <sup>W</sup>	
		E	iPP		07	12				- U.S.C.G.S.: 31.3 <sup>N</sup> , 40.9 <sup>W</sup>	
		E	iS		11	26				- Phases doubtful	
		E	i		13	42				-	
		E	iSS		14	16				-	
		E	L		19	58				+	
		E	M F		26	24	14	2			
19	27	E	L	06	43	18					
		E	L		48	40					
		E	M F		52	00	12	3.5			
				07	00	-				U.S.C.G.S.: 31.6 <sup>N</sup> , 131.1 <sup>E</sup>	
20	27	E	iSKS	17	35	48					
		E	iPS		39	08			111°	+	
		E	i		40	47			12330 Km	-	
		E	iSS		45	48				-	
		E	i		50	54				+	
		E	L	18	06	42				-	
		E	M <sub>1</sub> M <sub>2</sub>		09	32	25	4			
		E	F		14	37	20	4			
			36	-							
21	December 2	E	L	12	51	54					
		E	M F		54	12	14	7			
					58	30				U.S.C.G.S.: 36.5 <sup>N</sup> , 8.6 <sup>E</sup> Obscured by microseisms	
22	4	E	L	13	14	25					
		E	M <sub>1</sub>		17	30	15	6			
		E	M <sub>2</sub>		21	37	15	5			
			F		32	-				U.S.C.G.S.: 33.2 <sup>N</sup> , 95.3 <sup>E</sup> Obscured by microseisms	
23	6	E	i	17	09	30					
		E	L		24	05					
		E	M F		28	52	20	7			
					40	-				- U.S.C.G.S.: 49.4 <sup>N</sup> , 155.2 <sup>E</sup> Obscured by microseisms	
24	20	E	iP	13	37	23					
		E	i		40	54			77.5°	+	
		E	i		46	43			8610 Km	+	
		E	iS		47	17				+	
		E	iPS		47	58				-	
		E	eSS		52	30				+	
		E	eL	14	01	08				+	
		E	M F		09	38	20	5			
			45	-							
25	25	E	e	00	47	14					
		E	M F		50	09	20	2.5			
					55	-				U.S.C.G.S.: 38.3 <sup>S</sup> , 74.6 <sup>W</sup>	
26	28	E	e	00	26	00					
		E	i		28	10				+	
		E	eSS		33	24				-	
		E	i	01	12	10				+	

# SEISMOLOGICAL BULLETIN

KING'S COLLEGE OBSERVATORY, ABERDEEN

No.	Date	Compt	Phase	Time G.M.T.			Period sec.	Ampl. μ	Δ° km.	Direction of Motion		Remarks Time of Origin	
				h.	m.	s.				N	E		
26	Dec. 28	contd.	L M F	01	14	10 34 57	20	7		N	E		
27	30	E E E E E E E E E E E E	i iPP i eS iPS i iSS eSSS e L M F	00	52	00 53 53 59 01 00 01 52 04 38 07 24 10 55 17 - 29 34 02 30	20	30	70.5 7840Km			+ + + - + - - - +	U.S.C.G.S.: 52.3°N, 177.7°E

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