UNIVERSITETET I BERGEN

Sect P:

JORDSKJELVSTASJONEN (SEISMOLOGICAL OBSERVATORY)

SEISMOLOGICAL BULLETIN

1957 - 1959

BY MARKVARD A. SELLEVOLL AND KARSTEN STORETVEDT

Bergen, Norway, 1960

SEISMOLOGICAL BULLETIN

University in Bergeo, Norway,

Coordinates: () = +0 23'18"N, A= 5 18'18"E, Alt. = 22.5a.

Bergen 1957-59

By

MARKVARD A. SELLEVOLL

and

KARSTEN STORETVEDT

Bergen, Norway 1960.

SEISMOLOGICAL BULLETIN 1957

Registrations at the Seismological Observatory of the University in Bergen, Norway.

Coordinates: $p = 60^{\circ}23'18''N$, $\lambda = 5^{\circ}18'18''E$, Alt. = 22.5m. Constants:

		Instrume	ent	Weight	V	То	1:3	r/T_0^2
		Wiechert	Z	1300kg	290	3.3	3.2	0.058
		· · · 2	N-S	1000kg	150	9.3	2.35	0.020
			E-W	1000kg	150	9.3	2.00	0.013
.1	-31:	Willmore	Z				•••••	···

Dec.

No.	Date	Phase	Time		GMT)	Period	Amp A <mark>N</mark>	A _E	ide µ A _Z	Remarks
1	Jan. 2	^{eP} N(Z) eScS _N eL _N F	02	m. 50 00 12 10	s. 20 29 05					53 ⁰ N 168½ ⁰ W (USCGS) Very weak
2	2	^{eP} Z eS _N eScS _N eSS _N		28 37 38 41				3		52 ¹ 2 ⁰ N 168 ⁰ W (USCGS)
10		eLQ _N eL _N ^M N F	20	45 52 08	45 05 30	18	18			In next shock
3	2	eP _Z eS _N eL _N M _{1N}	04	59 08 20 32	49 08 00	18	18			53 [°] N 168 [°] W (USCGS)
4	3	M_{2N} F P_{NE} iP_{Z} ipP_{Z} iPP_{Z} S _{NE}	06 12 13	 43 10 58 00 06 	30 23 25 18 (58) 25	14	5			$44^{\circ}N$ 130°E (USCGS) $\Delta = 7330$ km $h \sim 600$ km Dilatation

N.	Det	The se		(Gi		priodi	Am	plit	ude µ	Rene rice-
No.	Date	Phase				Period	AN	A _E	AZ	Remarks
	T	.020	h.	m.	s.					
(4)	Jan. 3 (cont.)	isks _{NE}	13	07	22					
		e _N		08	53	****		******		
		sSN		10	00		******			
		SSN		11	02		*****			
		(i) _N		14	39			*****		
		F	14				*****			N 341 W CUBCCS
5	Feb. 6	• _{NE}	21	03	00					
		F	21	30		1				
6	10				~ .					A N 23 2 KUSCGS
0	10	еЕ	23	10	34					- 2700 km
		eLRN	*****	18	00				-	
		F	*****							In next shock
7	10	0	23	16	49					"N 23"E (USCOS
	10	^е Е F	00	20	49				*****	latation
	11	LN	00	20					*****	
8	11	eLN	01	57	45	12		*****	****	
		M _{1N}	02	09	30	20	14	*****		
		M _{2N}		16		18	11			
		2N F	02	50		10				
		z		10						1°N 23°E (USCOS)
9	19	e(S) _N	07	54	16					36 ¹ / ₂ °N 22°E (USCG
		eLE		58	05					
		MNE	08	01		10	3	3		
		F	08	15						

LO	23	PEZ	20	38	30					24°N 122°E (USCG
and the second se		iZ			57				*****	$\Delta = 9070 \text{ km}$
		ePPE		41	33				-	Compression
********		SE		48	38					
		e(PS) _E		49	12					
		eSS _{NE}		53	58					
		LQN		59	16					
		eLRN	21		10				*****	
		MNE			3.8	20	120	74	*****	
	******	NE M		18		14	120	74	0.0	
		M _{EZ} F	22			14		44	88	
							0			

No.	Date	Phase	Ti	me (0	GMT)	Peri	od	Am A _N	plit A _E	ide µ A7	3. Remarks
		1	h.	m.	s.		-	N	E	1	
11	Mar. 2	eS _N	00			-		Lod		-	182°N 78°W (USCGS
	1	N	00	40							182 N 78 W (USCGS
	(con	eSKSN		15	55			7		10	
		eLQ _N		58	06			7		0	
		F	01	25		30					
12	5	eS _E	12	37	50						33°N 34 ¹ / ₂ °W (USCGS
		eL _E		43	45	30	in and the second				
		F	13	10	40					manne	
		-	13	10					*****	*****	
13	8	eP _N	12	19	29	0.6			****		39 ¹ / ₂ °N 23°E (USCGS
		S _{NE}	neutron	23	45	0.6	in the second se				$\Delta \sim 2700 \text{ km}$
		LNE		26	16						
		F	-		11						In next shock
		a star	-						20		
14	8	^{iP} Z	12	26	26						$39\frac{1}{2}^{\circ}N$ $23^{\circ}E$ (USCGS
		ⁱ Z			44		and the second				Dilatation
		eLN		32	37	*****	······································				
		MN		37	30	12	******	66			
		^M E		40		10	******		35		62°N 176°W (USC
		F	13	20		26					Microseismic ap
15		D		0.4	40						
10	8	PZ	23	40	21		*********				$39\frac{1}{2}^{\circ}N$ $23^{\circ}E$ (USCGS
		ⁱ Z eS _N			31		******				∆ ~2700 km
				44	36	0.5					
		L _N	*****	47	20						
	20.	^M E	****	49	32	18			29		51 °N 177 °W (USC
		M _N		51	30	12	·····	5			
	9	F	00	10	0.0	30					Microselsmic ag
16	9	• D			1						0
	9	eP _N	14	33	32		********				51.3 [°] N 175.8 [°] W (USCGS)
	1	(PP) _N		36	28	43	********				$\Delta \sim 7950 \text{ km}$
		iPcS _N		37	55	07					Microseismic agit.
		SE		42	47	33			*********		
		iPS _{NE}		43	15	20					
*****		PPS _N			31	4.5	********		*******		
		isks _N			38						
		iSS _N		47	12						
		iL _N		53	26						
		MIN		58		24	4	80			
		iL _N	15	01	31						
		MNE		13	20	17	3	20	300		

	Date	Phase	Time (GMT)	Perio	di Am	plitudeµ	D
			These COMPAND		AN	A _E A _Z	Remarks
(16)	Mar. 9	M _{1E}	h. m. s. 15 17	17		320	
	(cont.)	1	10				
22 Ma	r. 11/61	^M 2E	10 00 201	17		310	JON 1781 W(USCGS
	el el	M ^M 2N	20 30		240		
	95	M3E	23	16		390	
	01	^M 3N	27 30	16	250		
	08	F	19				
17	9	•P _{NZ}	20 50 06				522 °N 1692 °W(USCG
	LE	eS _{NE}	59 06				
	110.				56		Microseismic agit
	14	e _N					
	12	LRN	11 47				
	P	MNE	18 30		26	53	
		MIN	22	18 .	40		
23	12 0	M _{2N}	31 30	16	27		13°N 1733°W(USCOS)
		F	22 20				
18	10	eN	03 26 24				0 0 0
		eLR _N	38 25				52°N 176°W (USCGS)
		F	-				Microseismic agit.
	12 1	2	04 40				
19	10	eN	15 47 13				52°N 173°W (USCGS)
		eLRN	59 05				02 N 175 N (05005)
		F	17 10				
			20 30		3.5	48	
20	11	eS _N	03 32 49	. 8		38	51°N 177°W (USCGS)
		eLRN	45 05				Microseismic agit.
		^M N	04 05 30	16	17		
		F	05				
		Pa	55 48				
21		eP _N	10 09 43				$53^{\circ}N$ $164\frac{1}{2}^{\circ}W$ (USCGS
		ePP _N	12 07			1 1	Microseismic agit.
		eS _{NE}	18 35				
	1	LQ _E	26 20				
		eLRN	30 45				
		^M IN	35	20	34		
-		W _E	38	20		40	
		NE	42	18	27	24	
		^M 2N	51	16	20		
	I	2N 7	11 50	10	20		
-				10	13	1.2	

No.	Date	Phase	Tin	ne (GMT)	Period	Amp	litu		Remarks
1.0.				1.6.6	0305	Partios	AN	AE	AZ	
			h.	m.	s.					
22	Mar. 11	eP _{NZ}	15	06	25	1.0		37		51 ¹⁰ N 178 ¹ ⁰ W(USCGS)
	(cont.)	ePP _N		08	54					
		eS _N	1.7	15	24					
		e(PS) _N		16	11					2 2 2 2 2
		(SS) _N	0.3	20	07	1999				60°N 167°N (OSCOS)
		eLQ _{NE}		23	10	*****			•	
		LRN		28	30	23.6				
		MN		31		28	56			
		M _{1E}		38		20		47		
		M _{2E}		42	30	20		37		34 "# 478 "W (USCGS)
		F	16	50						A
23	12	14	07	49	01					$51\frac{1}{2}^{\circ}N$ $173\frac{1}{2}^{\circ}W(USCGS)$
		•N		53	46					
		eL_N	08	00	25					
		F	09	10						
24	12	1 D	11	5.6	0.5					51°N 177°W (USCGS)
	14	^{iP} Z		56	05	20	57	.38		
		iS _N	12	05	(08)		58	44		$\Delta = 7770 \text{ km}$
		^e N		09	08	1.8		53		Dilatation
		LE		14	10					
		MINE		20	30	26	35	48		
		M _{2NE}	2.3	35		18	44	38		
		F	14							
25	13	ePN	15	53	08					51 ¹ / ₂ ^o N 179 ^o W(USCGS)
		ePPN		55	48					Weak
		eSN	16	02	09					
		eSSN	13	06	25					
		eLN		15	15					
		F	17	10	11					
				13						
26	14	eP _N	14	58	52					51 ¹ / ₂ ^o N 177 ^o W(USCGS)
		(PP) _N	15	01	48					Microseismic agit.
		SN		08	00					
		eSSE		12	18					
		eLQ_E		16	05					
		eLRN		19	30					
		^M 1NE		32		20	53	42		
		M _{1N}		34	30	18	47			

	D	Phaseo		1,000 1	(1)	1 Porto	Amp	litud	le µ	Rengeries
No.	Date	Phase	Tim	le (G	MT)	Period	AN	A _E	AZ	Remarks
			h.	m.	s.					
(26)	Mar. 14	M _{2NE}	15	40	30	16	44	27		SA NILES WELCOM
	(cont.)	M _{2N}	-	42		14	34			6 - 7350 km
		F	17	30						Microssissie as
	16									0
27	15	IN	03	12	24					53 [°] N 167 [°] W (USC
	4488444	eLN		25	10					
	-	^M N		35	30	16	6			
		F	04	15						
28	16	PZ	02	45	20		****			52 [°] N 179 [°] W (USC
		ePcS _N		49	54					$\Delta = 7600 \text{ km}$
		sres _N		54	18	10 D				Compression
					28	2.2				Compression
		ⁱ 1N ⁱ .N		55	05	20			an inclusion of the second sec	
		¹ 2N eSS _N		58	35	1.8	33.			
		L _E	03	04	16					
		E LR _E		04	47					
		^M INE		10	41	26	57	35		
		A REAL PROPERTY AND A REAL		21		18	58	44		
		M _{2NE}		21		18	50	53		
		^M E F	04	50		10		55		
			0.	00						
29	17	eL _N	23	15	30					54 [°] N 166 [°] W (USC
		F	24							
20					-					
30	3	eL _N	23	29	40					
		F	23	35						
31	19	e(P) _N	13	02	11					51 ¹ / ₂ ⁰ N 175 ⁰ W(USC
		e _{1N}		04	53				1	Microseismic ag
		eS _N		11	11	2.0				interoperonico de
	-	e _{2N}		12	25					
		e(SS) _N		15	16					
		LQE	03	19	44					
		eLRE		23	15					
	:	F	14	30						
			00	50						

	Dat	te	Phase	е	Ti	me (GMT)	Period	Am	plitu	AZ	Remarks
				h.	h.	m.	s.			F.		
32	Mar.	22	P _{NZ}		14	31	56					54 [°] N 166 [°] W (USC
			SNE		48							△ ~ 7350 km
			PSN		5.0		02					Microseismic ag
			(i) _N		52				****			microsersmic ag
			ScSN		87		49					
			e _{1N}		0.8	45	30		******			
			e _{2N}			48	11					
			iL _E		1.3	49	38					
			M _{1E}		14	51		36		82		
			iL _N	13	30	53	35					
			MINE			58		22	42	30		
			M _{2E}			59		22		48		
			MN		15	00	30	20	29			
			M _{2NE}	07		03	30	18	31	29		lorsex00
		-S	F		16	10						
		01.										
33		23	eS _{NE}	01	05	39	08					5 ¹ / ₂ °S 131°E (USC)
			ePSE			41	07					
40			eSSN			47	12					
			eLQN			58	30					
			F		06	45						
34		23	eN		08	55	02					
			F		09	15						
					5.8							
35		29	PN		05	21	20					53 ¹ ₂ °N 167°W(USCG
			SN			30	08					$\Delta = 7400 \text{ km}$
			eL _{1N}			37	28					
			eL _{2N}			42	20	22				
			MNE			45		28	39	28		
41			MN	04		54						
			F		07						1	
36	Apr.	10	D		20	52					h	
		10	EZ		05	24	37					$15\frac{1}{2}^{\circ}N$ 98°W (USCG
			eSKS _E			34	48				V	Weak
			eL _E F			58	15					
					06	20						

No.	Date	Phase	Ti	me	(GMT)	Period	Am An	plitu A _E	de µ. A.	Remarks
			h.	m	. s.		N	E	4	
37	Apr. 10	PEZ	11	40	25	-				56°N 154°W (USCG
-		SN		48	8 52					$\Delta = 7000 \text{ km}^{\circ}$
		eScSE		50	18					Dilatation
		SSE		52	2 56					
		L_{E}		51	7 41		-			
		L _N	12	02	2 10					
		MIE	2		30	20		21		
	20	M _{2E}		13	3	18		33		
		MN		14	30	18	22			
		F	13	30	,					
38	13	eLR _N	10	57	05				(and the second se	
		F	11	15	4 30					
20		DIO			53					
39	14	Z	07	21			********		in the second	Dilatation
		eS _E		29						
		eLQ _N F		36		36				
		Ľ	08	30		1.8		11		
40	14	PKPZ	19	37					·····	15 ¹⁰ S 173 [°] W (USCG
		PPZ		40	02				********	36°1 281°E (USCG
		PKSZ			53				*****	
		'N		41	(05)		*********	*******		
		ePPS _N		51	57			*******	*****	
and both anose		ePKPPKS _N		58	34					
	5	LRE	20	20	05	30	1.00	1110		,
deres server		^M N		24	30	28	44		********	
*******		^M E		28	30	28		39		
		MNE		37	3.2	18	22	31	*****	
		F	22		1		********			
41	16	iP(E)Z	04	16	49					1°S 1071°E (USCG
		epPZ		18	57					∆ = 11100 km
		Z		20	52					h = 585 km
	j	PPE(Z)		21	(06)	20		280	I	Dilatation
*******	12	SKSE		26	32	14	70		********	
*********		N		27	26					
4.7 Marca	2. 1	E PS _E			(06)					
	F	E		30	24					
******	F	LQN	05	45 50	18					

No.	Date	Phase	Ti	me	(GMT)	Period	A A	Mpli A	tude µ E A _Z	Remarks
		and the second	h.	m	1. s.	a constant of		1	E B	· ·
42	Apr. 19	iP _Z	22	3	30 30		and when a	comerce.		52°N 1661°W (USC
	****	ePcP _{NZ}	02	3	1 00			-		$\Delta = 7550 \text{ km}$
49	*	S _{N(E)}	12	3	9 25					Dilatation
	· · ·	ScSE	*		0 25			-	an an an	
		LQE	13	4			*******	and man		
50	8.1	eL(R) _N	01	5			******	man	****	
		F	23					ann		
43	20	eE	13	3	5 25		******	*****		
		F	13	50	0	****		Contraction of the local distance of the loc	******	
							*****	****		
44	1	ePz	21	24		*****			******	7°N 72°W (USCGS)
51		SE	13	34	0 16					∆ ~ 8700 km
		iPS _E								Weak
	5	LQN		44	4 55			teresteres	********	
		LE		47	7 20					
	2	MIE	09	52		26		26		401 N 31°E (USCG)
		^M 2E		58		18		11		
		F	23	40	\$					
45	24	o P	19	16					* *	41°N 31°E (USCGS)
	:		15					******		36 [°] N 28 ¹ / ₂ °E (USCGS
		iS _{N(E)}		20 21					*****	$\Delta = 3100 \text{ km}$
	2	^e E eL _N						·····		
	;	^{eL} N ^{iL} E		22				*****		
	1	5		25						
******		NE F	20	28		20	100	110		
			20	40	5					
46	25 I	NE	02	31				and a second		
	ţ	iP _Z								36 ^{1°} N 29°E (USCGS
		iS _{NE}			(11)					$\Delta = 3100 \text{ km}$
	((i) _E		37	07					Compression
	i	LRE		38	19				: :	
********	i	Lg _{1E}		40	26					
	M	E		44	1.5	20	allow-	280		
	:	N		45	30	14	79			
	F		04	20						
47	26 e	SE		43	56		*******			0
	e	SSE		45	32				3	6 ¹ / ₂ °N 29°E (USCGS)
	e	LE		47	45		*****			

1

No.	Dato	Phase	Ti	me (GMT)	Period	Am	A _E	de µ	Remarks
	~		h.	m.	s.		'N	Έ	1*Z	
48	Apr28	OIR								
40	Apr20	2	02							6 N 1203 E (USC)
		F	02	50						Dilatation.
49	May 12	eL _N	12	21	00					
	,	F	13					******		
						24	31	27		
50	21	e _{1N}	01	35	15		1.3			$21\frac{1}{2}^{\circ}N$ 144°E (USCO
		eS _{NE}			45	2.8				
a starting to the second		e _{2N}	20	36	08					
		esSN			35					
	1.3	eLN	08	57	15	*******				ali "Is lasi"E(USCC
		F	02	25						Nonz
			0.0					******		
51	22	(S) _N	13	50	16					50°N 177°W (USCGS
		eLN	14	03						Weak
		F	14	30						
										10N 00 00 00000
52	26	е _Е	09	04	45					$40\frac{1}{2}^{0}$ N 31° E (USCGS Very weak
		F	*****							In next shock
53	26	ePE	09	42	05					41°N 31°E (USCGS)
		iP _Z		32	08		13		-	Dilatation
*******		(i) _E	*****		24					Dilatation
50		eS _{NE}		46	35					
**************		eL _E	****	50	40					
				51	51	********				
60		L _E F	10	30	51				and other second se	
		aline in	10	30						
54	27	eP _{EZ}	11	06	51	20 20	13	******		40 ¹ [°] N 31 [°] E (USCGS
		eS _E		11	26			******		
61	1	eL _N		14						
	2	N F	11		45					
				40	3.6,					
55	June 11	PKPZ	15	09	27					30°S 178°W (USCGS)
		Z			33					
		∍L _N		59	15					
	2	7	16	50	33					
	:									

No.	1957 Date	Phase	Tir	ie ((IMT)	Period	Amp	plitude μ	Remarks
no.	Dave	1 1 1 1 1 1 1		-		10.100	AN	A _E A _Z	
			h.	m .	s.				
56	June 11	1P7	19	02	10				18°N 1201°E (USCG
	2	eS _{NE}		12	32				Dilatation
		eSSE		18				ano ano	A 8900 KM
		eE		22	13			arrenten 19	
	1	M _{1NE}		36			31	27	
		1NE 2NE		39	30		13		
			*****	43	30		10		
	I	E	20	10					
				10		10	270		****
57	12	eSE	08	49	19				$41\frac{1}{2}^{\circ}N \ 142\frac{1}{2}^{\circ}E(USCG)$
63	2	eLE	09	08	20				Weak
	1	F	09	25					
58		eP _Z	10	51	47				51 ¹ / ₂ N 175°W (USCG
		s _{NE}	11	00	45				
	~	eSS_E		05	07	(1444)			
		eLRN		13	15				
	1	MNE		16	30	28	28	22	
		ME		20		22		15	
		MN		32	30	18	13		
		F	12	50					
	10			200					
59	2	e _N	02	52	30				
64		F	03	20					
60	18	eS _E	15	10	13		· • • • • • • • • • • • • • • • • • • •		14°N 96°E (USCGS)
	1	eL_N		29	30				14 11 00 2 (010)
		M _N		35		20	13		
	1	^m N F				20	10		
88	1		16						71 S. 177 W (USCGS
61	23	ePP _{EZ}	00	09	43				$1\frac{1}{2}^{\circ}S$ 137°E (USCGS
		eSKSE		15	38				
	1	ePS _E		18	58				
		eSSE		25	06				
		е _Е		29	58			and	
		eL _N		40	33				
		MINE				26	96	83	7°N 99°W (USCGS)
		M _{2NE}				24	96	96	= 9300 km
		F	02	50					
	1							-	

No.	Date	Phase	Ti	mo (GMTC	L	Am	plitu	de y	
	Duve	Thase	- 11	me (GMI)	Period	AN	AE	AZ	Remarks
			h.	m.	s.					
62	June 27	PZ	00	18	37		~			56 ¹ ⁰ N 116 ⁰ E (USCG
		PPZ		20	39		•			$\Delta \sim 5950 \text{ km}$
		s _N	*****	26					~	
	,	SSNE		29		****				
*		LQN		31		****				
		M _E		37		10		170		
		M _{1NE}		41		12	390	400	80	
		INE ^M 2NE		46		10		160		
		2NE F	03	20	00		210	100	0.1.)	
			****			20				
63	July 2	^{i P} NEZ	00	49	50					36°N 53°E (USCGS)
		1 PP _{NEZ}		51	17					$\Delta = 4300 \text{ km}$
		1PPP _E			44					Compression
		iPcP _{EZ}	***	52	(02)					
		iS _{NEZ}		55	47					
		iSSE		58	23					
**********	1	eL _{NE} or	,			30				
******		ScS	01	59	55	- 1.6			E	,
*******		MINE	01	06		8	22	130		
reductive) were		M _{2NE}				22	140			
		ME E		10		22		105		
Support Prairie		F	02	30		30	30	1.8		
						24.		33		
64	10		09	40						
	1	N		48	1 -	20	5			
69	1			53		19		5		
	I	F	10	40		20	50			
65	14	DKD	0.6							.0
70		PKPZ	06		(09)					$27\frac{1}{2}^{\circ}S$ 177°W (USCGS
		1Z			18					licroseismic agit.
		2Z			(09)	20		9		
*****		PPZ		46	40					
		Ê	08	56	40					
	F		80			20		7		
6	28 i	P7	08	52	32					7°N 99°W (USCGS)
72		Z			34					
		Z		53 (4	h = 9300 km
	i	PP _Z		55	50		an bertanan			
	P	PPZ		57	40					

No.	Date	Phase	TI	me (GMT	Period	Amp	litu	de µ	Demont
			h.	me (s.	reriod	AN	AE	AZ	Remarks
(66)	July 28 (cont.)	S or SKS	09	ρ 3			****			ear South coast o
		PS _{NE}		04	08			*****		Galands. Philippi
		eE		08	02		-			
		(SS _{NE})?			52			****		
		L _{NE}	****	17	00					
		M	0.9	24		27	115	230	80	
		MN	******	26		27	160			
		MNZ		27	30	27	205	210	110	
		^M E F	10	30		20	220	100	62	
			10	30		2.3		250	165	
67	Aug. 16	e1E	23	48	22	22				
		e _{2E}	10	55	(11)					
7.4		(PS) _E		57	31					
	17	eL _E	00	02	20					
		MIE		18		30		4		
75	25	^M 2E	17	30		16		4		
		F	01	10						
68	18	eE	09	02	(11)					
76		LNE		19	40					
		MINE		25	0.81	30	30	18		Strong microselemi
		M _{2NE}		28	28	24	41	33		
		F	10		0.0					
69	18	e _N	22	19	(0.8					
		M _N		22	0.6	26	50			
		F	23		37	20	00			
70					30					
70	26	eL _E	12	19						
77		ME		20	30	20		9		
	1	F	12	50						
71	26	^{eL} E	14	43						
78		^M E		52		20		7		
	F		15	30	30					
72	30 e	E	16	27	40					
				43					******	
	N	ÉE E		46		8		1		
	F		17	10						

No.	Date	Phase	Tim	e (GMT)	Period	Amp: A _N	litu A _E	de µ A ₇	Remarks
			h.	m.	s.					
73	Sept.24	iP7	08	35						Near South coast o
	bob.	PP _{NZ}	-	38						Mindanao, Philippi
		SKSN	1.4	45						Islands.
80	13		04	46						istanus.
		e1N	0.6	40		*****				
		e _{2N}	******							
81		SSN	18	54						
		LQ	09	00						
		MINE	****	10		44		185		
		M _{2NE}	1.9	13	30	30	300	210		
		MNZ		17		24	220		62	
		M		22		23	150	250	165	
		MN		24		22	100			
		F	10	40		****				
						1.6		27		
74	25	• _{NE}	06	07	(10)					
82	20	F	06	30		*****				113° N 42°W (USCGS
				~						
75	25		17	28						
		^M E		41		18		4		
83	2.5	F	18							Microseismic agit,
76	28	iP _Z	14	38	21	20		11		
	20		14							Compression
		iSKPZ		41	(08)					Strong microseismi
84	20	iPPZ		21	28					agit.
		iPKSN	2.5	42	1.1.1.1					Fiji Islands
		e1N		45						
85	30	iSS _{NE}	02	59	06					Microseismic agit.
		e _{2N}	15	00						
86		^e 3N		04						
		F	16							
77	0.0	1 DKD	1.1	20						
87	29	1 PKPZ	08	31	58				1	Compression
		ⁱ Z	1.5	32	00					
		F	08	40						
78	Oct. 4	er	05	46	36					Microseismic agit.
		SS _E		50	56	2.6	9	14		agit,
		LQ _N		55	00	2.6				
			0.6							
		iL _{g1EZ}	06	00	45					

No.						L	Amp!	litud	de µ	15.
No.	Date	Phase	Tim	e (G	(MT)	Period	AN	AE	AZ	Remarks
		an a	h.	m.	s.					
79	Oct. 7	eL _E	14							Microseismic agit.
		Б Е	14					1		MICIOBELDINIC GBACT
		L'	14	25						
80	13	eL _E	04	58				-		
80	1	F	05	30				a a construction of the second se		
2			17	3.0				(history)		
81	19	ι _E	18	51	28			decourse.		
		iPcP _E			38					Out of work
91		eSS _E	23	56	28			hi ny sara-		
		eLQ _N	19		25					
			15			10		and the		
		LRN	24	07	28			*******		
and the second		MNE		14		22	83	97		
92		R _{gE}								Vory weak
		^M E		20		16		27		
		F	20	45						
03										$\Delta = 11320 \text{ km}$
82	20	ePSE	12	22						11 ¹⁰ N 42 [°] W (USCGS)
		eLQE		30	55					
		F	13							
			1	43						
83	25	Lg1	10	37	-				********	Microseismic agit.
		Ъ		46		20		11		
		F	11	10						
					60					
84		LN	15	21	40					Microseismic agit.
		F	15	50						Weak
85		eL _E	02	01	45					Microseismic agit.
		F	02	10	1					
86	01				01					
30		LRN	10	46	35					Microseismic agit.
		F	11	20	1					
87	Nov. 2									
	1	e _N	18	59	39	22				Microseismic agit,
		F	19	20	*******					
88	10	т	20	3.5		20				
	10	LNE		01	00	1.6		30		
		MNE .		05		16	9	14		
94		^M E		07		16		6		
	Dec.]	F	20	40		1				

	D .						Amp	litu	de µ	
No.	Date	Phase	Tim	e ((GMT)	Period	AN	AE	AZ	Remar ks
			h.	m.	s.					
89	Nov. 13	ePKPZ	17	42	39					33°S 179°W (USCGS
		eLRN	18	36	30					△ = 6040 km
		F	19	40						

90	15	е́Е	17	11	35	*****				
		F	17	30					*****	
	20	*******				***				Out of work
91		PSE	23	02	20					out of work
	:			31	20					
		L _{g2N}		40	(54)	16		4		
		^M E F	24	57		10		1		St. St. Serk
			24							
92	26	L _N	06	11						Very weak
		F	06	30						
						8	315			
93	29	^{iP} Z	22	33	10	8		290		$\Delta = 11320 \text{ km}$
		^{i pP} NEZ		34	05	8	1	300	200	
		ⁱ NEZ		37	(50		3.80			
		^e NEZ	1	38	05	-1.0			300	
		iSKS _{NZ}		43	22				3.80	
		iSKSE			25	****				
		iS _{NE}		44	17					
		ⁱ 1E			50	***				
		ⁱ 2E		45	14					
		ⁱ 3E			56					
		•N		46	10					
		iSSN		51	14					
		iSSE			17					
		i _{4E}		57	02					
		i _{5E}		58	50					
		iLQNE	23	00	18					
		MN		02		22	40			
		LRE		08	16					
		ME		15		20		44		
		MNE		20		16	15	30		
		F	23	50						
94										
01		i	11	23	30					
		F	11	24						

110.	Unter	120.8.9.0	122.000			leriode	1			17
No.	Date	Phase	Tim	e (GMT)	Period	Amp A N	A _E	de µ A _Z	Remarks
			h.	m.	s.					
95	Dec. 4	eP _{EZ}	03	47	11			*****		4510 N 992 E(USCG
		iz			14					$\Delta = 6040 \text{ km}$
		ⁱ NE			19					*
		ePPE	03	49	10					and the second second
		ⁱ _{1N}	05		30					Gerönetenic agit.
		PPPN		50	41	12				
		PcSE		51	(54)					
		iS(N)EZ								
	17				(54)					ta°S 167°E (USCGS)
		ⁱ 1Z		55	14					2 = 14500 km
		iSKS _E			(54)					Compression
		ⁱ 2N		57	06					
		iSSE		58	10					
		ⁱ 2Z		59	12					
		^M 1N	04	07	38	8	315			
		^M 1		08		8		290		
		^M 2		09	52	8	-	300	260	
		M _{2N}		10	(00)	8	380			
		^M EZ		12	(000	10		280	300	
		MZ		13	50				380	NE autor of the
					30	30		21		NE out of work fro
						26		24		04h 13m.
96	8	iPg	08	20	42	2.5		22		
		iSg			53					$60\frac{1}{2}^{\circ}$ N $3\frac{1}{2}^{\circ}$ E
		i			55					∆ ~ 100 km
101	23	iSn			57					
		F	08	22						
97	10									
	10	eZ	14	55	08					
		ePPS _E	15	06	22					
		е _Е		10	24					
		L _E F		32	22					
0			17							
98	13	^{i P} NEZ	01	52	15					34 ¹ / ₂ ° N 48°E (USCGS)
		1PPNEZ		53	44		*******			$\Delta = 4150 \text{ km}$
		iPcP _{NE} iS _{NE}		54	32					Compression
		iS _{NE}		58	09					
		SS _{NE}		00	52					
		LR _N ScS _E		02	03					
		E			18					

No.	1957 Date	Phase	Time	e (GMT)	Period	Amp	litu	de µ	Remarks
				0.00			AN	A _E	AZ	
			h.	m.	s.					
(98)	Dec. 13 (cont.)	Lg 2NE	02	05	39	AL BUL	ETI	19		
	(cont.)	Rg _E	att	07	25	mologii	at	•		ery of the
		MNE	Unive	11	30	-	25			
+		F	03							
	Coor	a nates:	05	62	3118		018	1.8*1		
99	17		PHALE	11.1	(00)					Microseismic agit.
						12	7	9		
		-	06	30	00(3)					8.9 0.059
100	17	1 PKPZ		09				-		12 [°] S 167 [°] E (USCGS)
100			11	00	56					$\Delta = 14500 \text{ km}$
		¹ 1Z		11		1	look	1	0	a a la
		^{iPP} NZ						3.0		Compression
		:		12	33 43					
		i PKS _{NE}		14						
No		ePPP _N		14	26 38		A.8			Remarks
		BANDN								inemal we
		еE	1		17					
	Jan. 2	ⁱ NE			52					45°N 151°E (09005)
2		¹ 1N	1		(00)	1				sel "N 121"E (USCGS
		¹ 2N IP			(00)	1				
		LRNE	1		(00)	1				
		MINE		55		30	16	21	[
		M _{2NE}		39	1	26	24	24		
3		^M 3NE	1	02		25	18	22		444°N 85°E (USCOS)
	1	F	16	20						
101	23	e _N	12	49	45					Wash
		F		20		9				Weak Microseismic agit.
-		F	10			1				Microseismic agit.
					1					81°S 791°W (USCGS)
										∆ ~ 9700 km
										Microseismic egit.
					1					
						:				
		1								
	I I I I I I I I I I I I I I I I I I I							204		

SEISMOLOGICAL BULLETIN 1958

Registrations at the Seismological Observatory of the University in Bergen, Norway.

Coordinates: $q = 60^{\circ} 23' 18''N$, $\lambda = 5^{\circ} 18' 18''E$, Alt. = 22.5 m.

Instrument	Weight	v	Т	٤:1	r/T ²
Wiechert Z Jan.1 - Dec.31	1300kg	290	3.3	3.2	0.058
-"- N-S Jan.1 - Sept.1 Sept.2 - Dec.3	1000kg	150 118	9.3		0.013
-"- E-W Jan.1 - Sept.1 Sept.2 - Dec.3	1000kg	150 108	9.3	2.0	0.020
Willmore Z Jan.1 - May 30					

	-		1	9.9	2.9			_		hidronelemmin agis.
No.	Date	Phase	Tin	ne (GMT)	Period	Amp	litu	de µ.	Remarks
						101100	AN	AE	AZ	nemarks
1	Jan. 2	iP	h. 21	m. 23	s. 30				Non 1999 1999 1999 1999 1999 1999 1999 19	45°N 151°E (USCGS)
2	5	SSN	11	51	43	20			******	56 ¹ ⁰ N 121 [°] E (USCGS)
		ⁱ N ^{iLg} 1N		58 59	45 31					
		F	12	30						
3	9	iP iPP	17	48 49	05 49					$44\frac{1}{2}^{\circ}N$ 85°E (USCGS)
4	15	1PZ	19	28	01					16 ¹⁰ S 71 ¹⁰ W (USCGS)
11		ipPZ ePPZ		28 31	28 58					h ~ 100 km
5	19	eP _Z iPP _Z	14	20 23	12 36				2	$8\frac{1}{2}^{\circ}S$ $79\frac{1}{2}^{\circ}W$ (USCGS) $\Delta \sim 9700 \text{ km}$
		i: _N iS _E		29 30	46 40				\$	Microseismic agit.
		^e E iPS _E		31	17 50					
		(i)LQ _{NE} (i)LR _E		42 47	(10) 24				******	
		^{iLg} 1 ^M 1NE		53 55	04	24]	180	290		

No.			1 -	ma b	21.02		Amn	litu	do II	1
No.	Date	Phase	Ti	me (GMT)	Period	AN	AE	A7	Remarks
12			h.	m.	s.				4	
(5)	Jan. 19	MONE	14	59		20	74	181		
	(cont.)	F	16							
		and and a								
6	23	^{i Pn} NEZ	13		16	3.3			11	65°N 61°E (USCGS
		PbZ	1.3		25		*****			$\Delta = 460 \text{ km}$
		PgZ			36					
13		iz			50					21 °N 120 °E (0500
		iSn _{EZ}		37	05					Microssissie agt
		iSb _{EZ}	00	37	19					
	-	EZ	-							
		SgZ F		1.1	41					
		F	13	45	20					
7	Feb. 1		16	33	29	20				Mi considerate anti-
		eLg _{1E}		54	33	1.8				Microseismic agi
		F	17	30	00	14	1.20			
		F	11	30						
8	7	e _N	23	51	38	12			and a second sec	
		eL	00	54	53				**********	
					00	2.0				
14	8	M _{NE}	24	00	1.3	20	18	8		
	0	F	00	40	33			********	1	
9	16	• _N	06	31	53				-	
-		eL		43						
		F	0.7		13					
	*******	r	07	20	1.0				*****	
10	19	eLN	20	10	21					
		F	20		21			*****		
			20	50	07			********		
11	22	iP _Z	11	01	32					50 ¹ / ₂ ^o N 175 ^o W (USCG
		¹ Z			44					$\Delta = 7850 \text{ km}$
		ePPZ		04	04					$\Delta = 7850 \text{ km}$
		iS _{NE}	0.3	10	45					
		ePPS _E		10		10	31	10		
		i(ScS) _E			26					
		eSS _N		12	12					
	T	N		14	54	20		00		
		LRNE		24	02					
	1	NN		24	30	32	27	28		
	T III	P		26	30	26		39	*******	
	F	F	12		30					
	1					20	1.8	2.5		

No.	Date	Phase	Ti	mo (GMT	Period	Amp	olitu	ide µ	3.
110.	Date	Indec	11	me (GMT	Feriod	AN		A _Z	Remarks
12	Feb. 24	eLR	12	51	45					51°N 175°W (05006)
		eLg _{2E}		55						
		eRg _N		57				ermanne		
			10							
		M	13			12	7	6	11	
		F	13							
13	27	19	23				. 1			0 0
10		iS _{NE}	23		(22)					21°N 120°E (USCGS)
	20	iPS _E	0.3							Microseismic agit.
	28	eLQ_N	00							
		eLN	10	09	47					
		eLg _{1NE}	*****	11	07		-			
		eLg _{2NE}		12	26					
		MIN	*****	13	all	20	26			in next obsets
		MNE		15		16	34			
18		M _{2N}	*****	20		14	12			
	.	2N M _{3N}		23	· · · · · · · · · · · · · · · · · · ·	14				
				25	30		10		1	
		^M E F	00		30	12		6		
			00	50					-	
14	Mar. 11	(i)P _{N7}	00	38	13	******	******			25 ¹ / ₂ °N 171 ¹ / ₂ °W (USCG
		ipP _{NEZ}	*****	16	33				*	
				39	03					$\Delta = 9250 \text{ km}$
		ⁱ EZ (i)PP	*****	39 41						$h = 50 \ km$
		(i)PPZE			36			and the second se		
		iPPP _E		43	13					
		iS _{NE}		48	29		*******		*******	
20		iPS _{NE}	02	49	24	-	*******			
		ePPSE		50	07					
		(i)SS _F		53	59		*********			
		iSSSEZ	03	57	23					
		iLQE		59	35				********	
		iLRE	01	05	07		*******			
	1	MNE		08	30		31	10		
		iLg _{1E}		10		10	31	10		
	1	^M 1E								
				15		20]	190		
	1	eRg _E M			27					
	,	^M 2E		19		12	********	28		
		F	02	40	********		******			
15	15 e	^a NE	01	07	39					
	B	MNE		11		20	18	1.5		
	T	-		40		20	10	15		

	1958		Phase Time (GMT)				Amp	litu	de µ	_
No.	Date	Phase	Time	e ((GMT)	Period	AN	A _E	AZ	Remarks
16	Mar. 20	(i)P _N iPcP _Z	01	49	11 46			320		$51^{\circ}N 173^{\circ}W$ (USCGS) $\Delta = 7750 \text{ km}$
		ePPN		51	47 (19)					
		^{iS} NE iPPS _E		59	04					le sest short
		eLQ _{NE} iLR _{NE}	02	06	29 07					
		F NE	03	27						Cospression
17	22	e _N	10	31 38	27 55					
		eLQ _N eLR _N			(22)			1		
		F						*****		In next shock
18	22	^e (N)E eLg _{1N}	11	26 31	48					in next shock
		Lg ₂	10	33	27					
		F	12	20						Ditatation
19	28	^{iP} Z (i) _Z	12	14 16	40 53					37 [°] N 71 [°] E (USCGS) Microseismic agit.
		(eS _N)		21	50					Weak
		$\mathrm{iSS}_{\mathrm{N}}$ eLQ		24 27	41 40		84			Compression
		F	12	50				20.		
20	Apr. 3	eSE	02	32	12		5.8			
	11	e(Lg _{2NE)} ^M N F	03	35 40	30	12	6			
21	7	^{iP} _{NZ} ⁱ Z	15	39 40	54 01					$66\frac{1}{2}^{\circ}N$ 157 [°] W (USCGS $\Delta = 5930$ km
		ePPZ		41	53					Dilatation
		^e 1N iS _E iPS _N		42 47	55 30 39					Teak
		^e 2N iScS _{NE}		48 49	39 30 34					
		iSS _E iLQ _{NE}		51	03					
		eLR _N		53 55	19 35		5			

No.	Date	Phase	Ti	me	(GMT)	Period	Amp A.	litu A_	de µ A Z	5. Remarks
			h.	m	. s.	****	N	E	Z	
(21)	Apr. 7	MNE	15	5	8	24	120	220		
	(cont.)	MIN	16			18	91	-20		
		^M 2N		3		16	39			
		2N F	Tree in the second	0.0		10	35			2"x 101"E (09003)
		SVE								In next shock
22	7	^{iP} NZ	18	1	6 42					38 ¹ ₂ °N 143°E (USCG)
		(i)PcP _{NZ}			56					Compression
		eN	******	2'	7 25	20	1.8			
		eLQN		3	5 50		23	14		
		eLRN		42	2 14					
		eLg 2N		44	1 14					
29		MIN		48	3 30	20	52			
		M2N		52	2	16	39			
30		F			0.1.					In next shock
23	7	1PZ	19	22	41					45°N 98°E (USCGS)
31		iΖ			51				*********	$\Delta = 5960 \text{ km}$
		eS _{N(E)}		30	30				***********	Dilatation
		eLQN		36	25	1.9				
		eLRE		38	46					
		eLg _{1NE}		41	16					
		M _{1N}		44	1	14	165		**********	
		M _{2N}	20	46	30	12	84			
		ME		47		10		20		
		M _{3N}		48		10	58			
	19	F	21							
24	i			10,						
		eL _N F	01	33						
			02	20						
25	11	^{i P} NE	23	22	25					48°N 152 ¹ °E (USCGS
		iP _Z			27					$\Delta \sim 7650 \text{ km}$
		iS _E	19	31	20					Compression
		e _N		54	24				1	Weak
	2	eLQ _E		39	42					HEAR
		-	24	20	(87)					
26	12	1	10							
		eL _N	12	09 21	10	24	1.5			
ander berranden alle		N.N.		34	13	16			20	
			13	34 20		16	5			

No.	Date		Phase	Tir	me (GMT)	Period	Amp	litu	ude µ	Remarks
		_						AN	A _E	AZ	1 Aleman Aleman
				h.	m.		****				
27	Apr. 1	12	eN	14	08	3 57					
			F	14	30					*****	
		-			2.0						
28	L	.3	eP _{NZ}	12	39						53 [°] N 161 [°] E (USCGS)
		1	is _{NE}		48						$\Delta = 7330$ km
		1	eLQN		56						Compression
			eLRN	***	59	51					
			MN	13	10		20	18			
			M	1.0	17		16	22	14	43	
			F	14	10						
37					1.3						
29	2		eN	03	39	6					Microseismic agit.
			F	04	20						
30	2	9	_	12	27	01					
30	-		^e N F	12	37						
			F	13	20						
31	3	0	eS _N	14	18	42					37,8°N 14.2°W(USCGS
		1	e _{NE}		20						
39			NE M _N		23		18	8			Microseismic agit.
				0.0	25	30		0	-		
44			^M E F	14	25 40		16		7		
				14	40						
32	May 3		eN	20	25	(44)					
43			eLg _N	10	32	1					3°5 1446°8 (0300)
		1	F	20	50	1					
					00		2.4				
33	19	9 :	iPn	23		15	20				
			iPg			17	120				∆ ~ 210 km
			iSn			38					Not felt in Norway
		4.	iSg			42					
42			iz	00		-					585 "N 136"W (USCG
34											A = 6525 %*
34	31		(1)PKPZ	19	51	55					15°S 169°E (USCGS)
			ez		54	30					
			ⁱ NZ		55	26					
		li	'N			(57)					
		e	eLQN		32	-					
			NN		49		24	15			
			N ^I Z		00	30	22			29	
			7		50					40	

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No.	-					1				7.
	Date	Phase	Tim	ie ((GMT)	Period	Amp A _N	litu A _E	de µ AZ	Remarks
35	June 4	e _N F	h. 15 15	m. 09 40	s. 02	20		20	1.6	
36		eP _Z eS _N eN eLQ _N M _N F	09 10 10	23 34 39 45 00 40	50 07 14 32	20	10			8 ⁰ N 85 ⁰ W (USCGS) Weak
37			21 22	13 24 30	29 39					0 ⁹ 1203 ⁹ E (USCOS)
38	18	e	01	17		2.4				
45		5.0	01	27 45		12	3			
39	23	e _N	05	32	48					
	-	T	06	10						101°8 60°7 (U2008)
40	24	en F	05 05	10 30	38					$\Delta = 000 \text{ km}$
41	25	e _N eL _N ^M 1N ^M 2N ^M 3N F	10	15 23 37 40 47	03 03 30	24 20 20	33 18 22			3 [°] S 144 ¹ ₂ [°] E (USCGS)
42	July 10	^{i PP} NZ	06	25 28 29	52 13 39					$58\frac{1}{2}^{\circ}$ N 136 [°] W (USCGS) $\Delta = 6525$ km
47		^{1S} NE ^{1PS} NE ^{1SS} N ^{1SSS} N ^{LR} EZ		33 34 37 40	52 09 39 07 (55)					
	36 37 38 39 40 41	36 6 37 12 38 18 39 23 40 24 41 25	36F366PZ eSN N PN 	36 F 15 36 e^{P}_{Z} e^{N}_{N} e^{N}_{N} e^{N}_{N} e^{N}_{N} e^{N}_{N} e^{N}_{N} e^{N}_{N} e^{N}_{N} 09 e^{N}_{N} e^{N}_{N} e^{N}_{N} 37 12 e^{N}_{N} e^{N}_{N} 21 e^{2N}_{N} e^{1}_{N} e^{1}_{N} e^{1}_{N} 38 18 e^{N}_{N} e^{1}_{N} 	N F 15 40 36 F 15 40 36 6 eP_Z 09 23 eN eQ_N 34 eN eQ_N 39 eLQ_N 10 00 37 12 e_{1N} 21 13 e_{2N} 22 30 38 18 e_N 01 17 M_N 21 13 24 27 7 01 17 27 01 45 39 23 e_N 05 32 6 0 24 e_N 05 10 40 24 e_N 05 10 15 41 25 e_N 10 15 23 M_{1N} 37 40 47 24 23 42 July 10 P_{NEZ} 10 15 12 12 12 12 12 </td <td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td> <td>$\begin{array}{c c c c c c c c c } & F & 15 & 40 \\ \hline F & 15 & 40 \\ \hline F & 36 \\ e_{N} & 39 & 14 \\ e_{L}C_{N} & 45 & 32 \\ e_{N} & 10 & 00 & 20 \\ \hline e_{N} & 10 & 40 & 20 \\ \hline e_{L}C_{N} & 10 & 40 & 20 \\ \hline F & 10 & 40 & 20 \\ \hline F & 10 & 40 & 20 \\ \hline & & & & & & & & \\ \hline & & & & & & & &$</td> <td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td> <td>36 F 15 40 F 15 40 36 e P_Z 09 23 50 80 10 10</td> <td>N IS 40 A 36 \mathcal{F} 15 40 15 36 \mathcal{C} \mathcal{P}_Z 09 23 50 \mathcal{P}_N 39 14 07 9 24 07 \mathcal{P}_N \mathcal{P}_N 39 14 14 14 14 14 14 15 32 37 12 \mathcal{P}_N 21 13 29 20 10 37 12 \mathcal{P}_N 22 30 39 24 39 7 12 \mathcal{P}_N 01 17 47 47 37 38 18 \mathcal{P}_N 05 32 48 48 48 39 23 \mathcal{P}_N 05 10 38 24 33 41 25 \mathcal{P}_N 10 15 03 24 33 \mathcal{M}_N 37 30 24 33 34 47 20 22 42 July 10 \mathcal{P}_NEZ 12</td>	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c } & F & 15 & 40 \\ \hline F & 15 & 40 \\ \hline F & 36 \\ e_{N} & 39 & 14 \\ e_{L}C_{N} & 45 & 32 \\ e_{N} & 10 & 00 & 20 \\ \hline e_{N} & 10 & 40 & 20 \\ \hline e_{L}C_{N} & 10 & 40 & 20 \\ \hline F & 10 & 40 & 20 \\ \hline F & 10 & 40 & 20 \\ \hline & & & & & & & & \\ \hline & & & & & & & &$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	36 F 15 40 F 15 40 36 e P_Z 09 23 50 80 80 80 80 80 80 80 80 80 80 80 80 10	N IS 40 A 36 \mathcal{F} 15 40 15 36 \mathcal{C} \mathcal{P}_Z 09 23 50 \mathcal{P}_N 39 14 07 9 24 07 \mathcal{P}_N \mathcal{P}_N 39 14 14 14 14 14 14 15 32 37 12 \mathcal{P}_N 21 13 29 20 10 37 12 \mathcal{P}_N 22 30 39 24 39 7 12 \mathcal{P}_N 01 17 47 47 37 38 18 \mathcal{P}_N 05 32 48 48 48 39 23 \mathcal{P}_N 05 10 38 24 33 41 25 \mathcal{P}_N 10 15 03 24 33 \mathcal{M}_N 37 30 24 33 34 47 20 22 42 July 10 \mathcal{P}_NEZ 12

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No.	Date	Phase	Ti	me	(GMT)	Period	Amp A _N	litu A _E	de µ A ₇	Remarks
			h.	m .	s.		1		4	
(42)	July 10	M	06	50	30	20	470	200	160	
	(cont.)	M2		52	3	18		140		
		F	08	30					-	
43	17	eP _{NZ}	05	42	12	****				40 ¹ / ₂ °N 23°E (USC
		eS _N	8.0	46	13	****				
		eN	***	51	19					
50		MN	11	52	30	13	3			
		F	06	10						
44	19	e _N	18	48						0° 129 ¹ / ₂ E (USC
		eLQN	19	(00						
52		eLRN	20	05		*****				53 ⁻¹ N 1603 ⁶ E 1005
		MN F		15	30	22	12			4 = 7325 km
		r	20							
45	23	eSN	10	49	58					31°N 142°E (USC
		eLN	11	08	19					51 N 142 E (USC
		F	11	50		20				
46	26	1PZ	17	49	27		********			13 ¹ / ₂ °S 69°W (USC)
03	15	i(E)Z	22		34					△~ 10650 km
		iZ		50	01					$h = 600 \ km$
		ipP _Z		51	42	*****			1	Compression
**********		e1N			58	******				
		ePPZ		53	20					
		e(pPP) _{NZ}		55	18				*******	
		eSKSNE		59	08				*******	
		eS _{NE}			57					
	ſ	PSE	18	02	33					
5.4	1	I SSNEZ		04	00					
		ISSN		06	42				1	
		N		12	13				1	
	e	2N		16	35					
	F		19	20						
47 A	lug. 6 i	PnNEZ	17	10	12					
	i	Sg _{NEZ}	17	16	27				F	elt in greater
	i	EZ			38				N	orway. Epicentre
	F		17	17 20	32				p	robably $59\frac{1}{2}^{\circ}N$ 5 \triangle ca. 100 km.

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	1958					1	1 0			9.
No.	Date	Phase	Ti	me (GMT)	Period	Amp	AE	ide µ A ₇	Remarks
48	Aug. 12	en ^M N F	h. 20 20	13 27	50 30	20	5			A so. 200 ks
49	13	eN	07	53	10					-
		F	08	10		*****		*****		0° 18 W (USCGS)
50	14	e _N F	11 12		48					Alatation
51	14	e _N F	15 16	20 10	10					
52	15	iP _N PcP _N	20	06	21 48					$53^{\circ}N \ 160\frac{1}{2}^{\circ}E \ (USCGS)$ $\Delta = 7325 \ km$
58		eS _N eN eL _N	09 23.	14 16 27	54 43 36					
		^M N F	21	39 20		20	7			
53		P _Z ^e Z eS _N	22	42 48 54	56 21 35					1^{10}_{2} N 125 [°] E (USCGS) $\Delta \sim$ 11550 km Compression
		ⁱ N PKKS _N	23	55 03 10	50 00					00mpression
60		^e n eLQ _N ^M NE F	07	13 23	59 59	20	43	31		
54		I P _{NEZ}	24 19	21	04					0-
	•	SNE	10	26	51					$34\frac{1}{2}^{\circ}N$ $48^{\circ}E$ (USCGS) $\Delta = 4200 \text{ km}$
2	e	SS _{NE} ELR _N		29 31 35	29 57 12					Dilatation
	F	4	20	37 40	20	20	35	19	11	
3					00					

No.	Date	Phase	Ti	me (GMT)	Period	Amp	litu	de µ	Remarks
NO.	Duri						AN	A _E	AZ	
			h.	m.						
55	Aug. 29	PgNEZ	15	14	57					∆ ca. 200 km
		ⁱ NEZ		15	09					Not felt in Nor
	Annual Fait	Sg _{NEZ}			21					
		F	15	16						0 = 7880 ba
56	Sept. 3	(i)P _Z	03	54	53					0° 18°W (USCGS)
		eS _{NE}	04	03	17					∆ ~ 7050 km
		eSSN		07	40			1		Dilatation
		LQN		10	03					
		LgN		18	37					
		F	05							
57	3	eL _N	08	48	08					40 ¹ / ₂ °N 143°E(USCO
		MN		52	30	20	8			
		F	09	40						
					30			39.30		
58	4	e _{1N}	22	19	(04)	32		3000		33 ¹ / ₂ °S 69 ¹ / ₂ °W(USCG
		e _{2N}		41	28	21	3.630	2650	0.500	
		F	24							
59	14	PZ	14	30	57					56 ¹ / ₂ °N 120 ¹ / ₂ °E(USC
		eSE		38	01					∆ ~ 5900 km
		eLg _{1NE}		49	34					
		MNE		51		5	11	10		
		iRg _{NE}		53	46					
		F	15	30		2.4				
		1			30	20				
60	25	LQNE	07	46	50	20				
		^M E		50		20		19		
		F	08	10						
1	Oct. 22	eL _N	08	33	15					444 "N 81"5 (0000
		F N	08		45	2.2				Nuclear explosion
			08	45	130			4.5		agit.
2	28	e _N	11	11	00					
		eLN	08	16	15					
		MN		22	30	18	25			
]	F	11	50		-0	20			
3	20									
9		Z	08	34	00				r	N and E out of wo
		F	09							08.00 - 12.30

No.	Dat	е	Phase	Ti	me (GMT)	Period		litu		Remarks
	1							AN	A _E	AZ	para a series and the series of
			. T	h.	m .	s.					
64	Nov.	T	eL _N	04			BULL BULL		1.961		
			F.	05	10		enologi.				
65		6	^{iP} NEZ	23							$44\frac{1}{2}^{\circ}N$ $148\frac{1}{2}^{\circ}E(USC)$
			ⁱ 1Z			50					$\Delta = 7880 \text{ km}$
			i _{2Z}		10	06	N, X = 1				Compression
			ⁱ _{3Z}			16					
			1 _{4Z}		11	26	New Yes	lght			
			:		13	17		oo ka			
			1PPP _N			50	1		32		
			iS _N	Jan,	18						
			i(PS) _N	A. D. P	19					0	
			iSS _N	Jan. Apr.)		07				5	
			1								
			ⁱ N iIO		27	29					
			iLQ _{NE}		28	11					
No.			MINE		39	30	21	1723	3930		
			M _{2NE}		40	30	21		3600		
			M		44	30	21	3010	2650		
			F	04	30						
66		12	iP ₇	20	34	5.0					441 ⁰ N
			4	20		52					44 ¹ / ₂ °N 148 ¹ / ₂ °E(USC(
			^e Z		35	22				-	∆~ 7900 km
			SN		44	10					Compression
			e _N		48	50		176	644		
			eL _{NE}		51	55	1.6		.47		
			M	21	05		24	170	250	88	
			MINE		06	30	20	78	93		
2			M _{2NE}		09	30	20	92	95		
			F	22	20	19					73 N 243 W (USCGS
67	Dec.	21	e(SS) _E	06	05	06					$44\frac{1}{2}^{\circ}$ N 81°E (USCGS
			MN		11	30	12	49			
			ME		14	30	8	49			Strong microseism
3		20	E ^M Z		15	30			45		agit.
			F	06	50	30	4			12	
				00	50						
8		25	eL _N	09	12	45					
			F	09	35						
9		28	eN	06	02						
1			N	00	02						

SEISMOLOGICAL BULLETIN 1959

Registrations at the Seismological Observatory of the University in Bergen, Norway.

Coordinates: $g = 60^{\circ} 23' 18''N$, $\lambda = 5^{\circ} 18' 18''E$, Alt. = 20.5m. Constants:

constants:	Instrument	Weight	v	Т	٤:1	r/T _o ²
Wiechert Z	Jan.1 - Apr.17 Apr.18 - Dec.31	1300kg	290 320	3.3	3.2	0.058
-"- N-S	Jan.1 - Apr.17 Apr.18 - Dec.31	1000kg	118 140	8.6 9.8	3.0	0.025
-"- E-W	Jan.1 - Apr.17 Apr.17 - Dec.31	1000kg	108 200	8.5 8.2	0.7	0.038

	+									
No.	Date	Phase	Ti.	no 11	TRATI	Period	Amp	litu	de µ	Remarks
	Latt	1 nabe	1 11	ne (c	JMIT)	Period	AN	AE	AZ	nemarks
			h.	m.	s.					
1	Jan. 22		05	22	17					34°N 142°E (USCGS)
		ⁱ Ζ			30					Δ ~ 8500 km
8	Apr. 1	SNE	00	31	59					Compression
		^e NE	*****	40	17	1.8	6			
		eLE		45	09					
		MINE		53	30	24	176	144		
		^M E	1.0	59		16		147		
		M _{2NE}			30	16	148	86		
100		F	07	20						
2					40					
	24	eSN	20	06	19					$37\frac{1}{2}^{\circ}N 24\frac{1}{2}^{\circ}W$ (USCGS)
1.1	15	eSSE		07	44					
		eL _E		10	05					
		F	20	50						
3	29	iP _{NZ}	23	17						31.°S 178°N (USCOS)
			23	27	05					70 [°] 54'N 7 [°] 50'E
		ⁱ NZ		28	50					
4	30	e _N	22	51						
		R F	23	30						
							1			

	Dete	,	Phase	714	- (GMT)	Period	Am	glitu	ide µ	Damanha
No.	Date		Flase	111	ne (GIVIT)	Period	AN	A _E	AZ	Remarks
				h.	m.	s.	******				
5	Feb.	7	P _{EZ}	09	50	02	dag ag bene i e n				$4^{\circ}S 81\frac{1}{2}^{\circ}W$ (USCGS)
			iPP _{EZ}		53						$\Delta = 10250 \text{ km}$
			eSKS _E	10	00						
			iS _{NE}		01						
			ePSZ								
			e _E		06		*****				
			eL _E		17						
			M_{E}		26		24		113		
			E F	12	30						
6	Mar.	1	SSE	17							$\frac{1}{2}^{\circ}$ S 134 $\frac{1}{2}^{\circ}$ E (USCGS)
			LQN		34	04					
			LRN		38	39	30			208	
			MINE		46		22	55	53		
			M _{2NE}		56	30	20	33	12		
			F	18	30						
7		18	0	01	24	40					
		10	е _Е F	01	50						
			L	01	50						
8	Apr.	1	eL _N	00	51	15					27 ¹ / ₂ ⁰ N 21 ⁰ W (USCGS)
			MN		53	30	18	6			
10			F	01	20						
9											11 N 1591 E(USCGS
9		5	e _N	10	55						44°N 7°E (USCGS)
			F	11	10						
10		6	e _N	15	14	40					10 [°] S 120 ¹ [°] E (USCG)
			N F	15	30	40					10 5 1202 E (USCG
11		15	•NE	00	55						
			F	01	10			129			
12		24	iPKPZ		4.0				25		0 0
			F	18	17	54		43			31 [°] S 178 [°] W (USCGS)
				20	10						
13		25	eS(N)E	00	37	10					$37^{\circ}N$ $28\frac{1}{2}^{\circ}E$ (USCGS)
			eLE	80	40	44		1	10 71		07 H 202 E (UDCUD)
			F						1.4. 1.5	1	

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No.	Date	Phase	Ti	me (GMT)	Period	Am	plitu	ide µ	Remarks
							AN	AE	AZ	nemarks
18			h.						deres seres	44 N 168 E 015
14	Apr. 26	^{i P} NEZ	20							$25^{\circ}N$ $122^{1}_{2}^{\circ}E(USC)$
		1 pP _{NEZ}	m	53	(16)					∆ ~ 9000 km
		ePPE		55	53					h = 145 km
		(i) _{NE}		59	39					Compression
		е _Е	21	02	16					
		SNE			38				-	lat of work from
		i(PS) _{NE}	and the second	03	32					Dao ⁿ a 11 ^h 41
		e _{1N}		07	38				****	
1.9		SSN		08	04					
		(i) _N	and a state	11	24					= 3100 km
		e _{2N}		14	10					
		iLR _N	- sugar	18	03					
		M	· mane	26		20	207	113	208	
		MN		30	disperse.	12	32			
		MNE		32	30	12	25	-		
		F	22	20						
15	28	ePE	11	21	50					15 [°] N 93 [°] W (USCG
21	1	eSE	****	31	57					10 14 93 W (USCG
*******		i SKS _E		32	09					
		eLE		51	40					
		F	12	30						
16	May 4	D								
	may 1	PNEZ	07	26	21				1	$51\frac{1}{2}^{\circ}N \ 159\frac{1}{2}^{\circ}E(USC)$
		ipP _{NEZ}			36					∆ ~ 7300 km
	\$	iPcPZ		27	01				1	$h = 60 \ km$
		iZ		30	46					
		iS _{NE}	03	34	56					
		iSS _N		39	23					
		iLQ _{NE}		42	28					
		LRN		45	15	28				
	T	MINE		47	30	50	1929	925		
	1				31					
	I.	^W IN			30	36	643			
		² 2N		54		24	261			
	R	E		57		20		210		
	F			01	30	14	69	71		
	ľ		11							
7	5 e	L	19		20					3°N 159°E (USCG

	1959	1. S		-				Amp	litua	do U	
No.	Date	9	Phase	Tim	ie (I	GMT)	Period		A _E		Remarks
				h.	m.	s.					
18	May	12	e(P)Z	05	08			and			54 ¹ ₂ ^o N 168 ^o E (USC
	2		iz	00		34					100 Mar
			eS _{N(E)}	****	16	51					
				hennes	28						
			eL _{NE} F	06	40						
			ET.	0			*****				
	-	12	*****	*****							Out of work from
									*********	3	$10^{h}00^{m} - 11^{h}41^{m}$
											10 00 - 11 41
19	*****	14	PZ	06	42	52					$35\frac{1}{2}^{\circ}N \ 24\frac{1}{2}^{\circ}E \ (USCG)$
			eS _N			32					$\Delta = 3100 \text{ km}$
						45		*******	******		
			^e NE								
		5	iLg _{NE}	****		(15)					
		2	MN		56	P	10	5			
			F			6 22				********	Out of work
											0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
20			e _E			15			and the second se		$41\frac{1}{2}^{\circ}N$ $42^{\circ}E$ (USCGS
			F	20	20						
21	1 1 1 1 1	24	iP _{EZ}	19	29	50					
			1							1	17 ¹ / ₂ °N 97°W (USCGS
		1	^{pP} EZ			(15)	1			-	$\Delta = 9100 \text{ km}$
28										1	h ~ 100 km
			iS _E			56					Dilatation
			iSS _E			(15)			****	*******	
			eL_E		57	45			******		
			F	21							
22	June									********	
	June		е _Е	03		15					
			F	03	50						
23		2	J								
		-	eL _{NE}	05							
			M _{NE}					31	27		
			F	06	30						
24		14	еР _Z	00		1.0					0 0
			i PD			40				2	$20\frac{1}{2}^{\circ}S$ 68°W (USCGS)
			iPP _{EZ}			44				4	∆ = 11100 km
			(i) pPP _{EZ}		30	12				ł	n ∼100 km
			iSKSE		36	07				С	Compression
		1	iS _{NE}	02	37	02					
			(i) _E		39	18					
		1	iЕ		40	11					

N	Date	Phase	Time	. (((TMF)	Period	Amp	litu	de µ	Remark s
No.	Date	Indbe			, ,	rentou	AN	A _E	AZ	nemark s
(24)	June 14	eSS _E e _{1N}	h. 00	m. 43 44	s. 43 34					
32		^e NE ^e 2N LQ _N		49 52 55	17 20 40					-
33		LR _E F	01	59 50	20					Lei's L773 W(USCOS
25	18	eS _N eL _N	15 16	50 04	39 25					54 [°] N 160 [°] E (USCGS) Two earthquakes
		M _N M _{NE}		11 14	30	18 14	39 22	28		Microseismic agit.
		F	17	20						
26	27	eP _{NE} eS _N F	19 19	36 38 50	22 46	1.9		291		Near south coast o Iceland
27	July 3	^e N F	19 19	01 20	20					16°S 172 ¹ °E (USCG)
28		P _{EZ} eSKS _N iS _N	20	07 17 18	37 52 06					$15\frac{1}{2}^{\circ}$ N $120\frac{1}{2}^{\circ}$ E(USCGS $\Delta \sim 9800 \text{ km}$
		PS _E L _N eLR _{NE}		32 35	57 55 48					
		F		15	40					
29	19	ePPZ eSKSE		22 29	57 34		-			15 [°] S 70 ¹ 2 [°] W (USCGS)
		eS _E eSS _E eLQ _E		30 37 45	20 04 31					
		eL _N F		48 25	04					
30	23	^e N F	01	13 35						

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No.	Date	Phase	Ti	me ((GMT)	Period	Am	plitu A_	de µ	6. Remarks
		and the second	h.		s.		N	A _E	Z	
31	July 24	0	01		5 25					
51	oury 21	F	02							
		r	04		58.	4.184.10111				
32	26	eN	17		12	1				
		F	17							
	20					and the second				Leon et ou cuscos
33	Aug. 12	eLN	2	02						16 ¹ / ₂ °S 177 ¹ / ₂ °W(USC)
		F	-	35						
34	15	P(NE)Z	09	09	29					23°N 121°E (USCGS
		ePPZ	****	12	39					∆ ~ 9200 km
		SNE		19	46					
		eSSNE	******	25					***********	
		eE		28	42				al a second	
	29	L(R) _N		34	45					
		MINE		45		19	388	291		
		F	10	40	11					
35	17		-	2.0	20					
00		еЕ	01	41			13			$42\frac{1}{2}^{\circ}N \ 20\frac{1}{2}^{\circ}E \ (USCO)$
		L _E F	*****		38			******		
		F	02	05						
36	17	ePKS _E	21	32	15					51 ⁰ 0 150 ⁰ D (100000
		eSS _E	21	41						$7\frac{1}{2}^{\circ}S$ 156°E (USCGS
		eL _E		41 57	50 46					
		Е F	23	10	40		20			
			20	10						
37	18	ePE	06	47	44					44 ¹ ₂ ^o N 111 ^o W (USCG
		i _{1E}		51	43				1	$\Delta \sim 7000 \text{ km}$
		(i) _E		55	41					
	14	iS _{NE}	14	56	25					
		i _{2E}		57	12					
		SSN	07	00	19					
		eLRN		06	17					
		WINE		16	00	16	286	270		
		^M 2NE				14	127	1		
	I	F	10			TA	141	191		
8		1					100			
	10 6	S _{NE}	15	44	56					44 ¹ / ₂ °N 111°W (USCGS
		'N		57	18					
	F		16	25						

No		Date	Phase	Ti	me ((GMT)	Period	Amp A _N	litude A _E A	μ Remar	ks
39		Aug. 2	4 ePP _N eSS _N eL _{NE}	21 22	09 32	17 15 58				10 ¹ / ₂ °S 161	°E (US
40		2	6 ePPS _N		20 47		*****************************			18 ⁰ N 94 ¹⁰	W (USC
	esençesses este Managers ser bag		eL _N F	-	58 25	23	******		********	22 7 122	
41		2	6 eS _N e(LQ) _N eL _N	10	46 54 00		*****			51°N 132°	(USC
42		2	F 9 eP _Z	11	25 12	20	*****		*****	ED ^O N LOCIC	
		Oct.	eS _E eSS _{NE}	.	19 23 39					52 [°] N 106 ¹ 2 [°]	
			MN F	18	40 30	30	9 8	13	10		
43	S	ept. :	eP _{NZ} eS _E eL _{NE}	11	42 46 48	33 30 59				$41\frac{1}{2}^{\circ}$ N 20 [°] E	(USCO
44			M _N F	12			12	20			
			e eL _N F	02 03	42 10	00				3°S 146 ¹ 2°E	(USCG
5		14	PKPZ ePKS _N e1N	14	29 33 43	25 17				28 ¹ 2 ⁰ S 177 ⁰	
			¹ N ^e 2N eSKSSKS _N ePKPSKS _N		43 46 51 53	49205949				44 ⁰ N 140] Microsotz	
			eL _N ^M N ^M E	15	20 38 43	23	21 17	40	25	1272 °N 203	
			F	17	10				25	Compressi	

No.	Date	Phase	Ti	me (GMT)	Period	Amp	litu	de µ	Remarks 8.
140.	Date	Indbe					AN	A _E	AZ	Remarks
			h.	m .	s.					
46	Sept.15	ePKPZ	06	19	32	*******	- Martine Contraction			282°S 177°W(USC
		ePKSN		22	47	****				
		eN	********	23	43		10, 4 NO 10000			
		eLN	07	07	20	*******				
		F	08	25			(*************************************			
5.4							citeren est			
47	25	e ^P Z eS or	02	49	18	*****				22 [°] N 122 [°] E (USC(
5.5		SKSE		59	33					
		e(PS) _E	03	00	35					
		eLN		18	30					
		M _{1NE}		22		25	59	42		
		1NE ^M 2NE	*****	30		16	24	15		
	30	2NE F	04	10				10		
48	Oct. 7	eP _{NZ}	08	35	30		1.5000000000000000000000000000000000000			41 [°] N 20 [°] E (USCGS
		eS _N		39	32		******			
		eL _N	*****	42	43					
		F	09							
49	15	ePPE	06	33	45					$\frac{1}{2}^{0}$ N 120 $\frac{1}{2}^{0}$ E (USCG
		e(SKS) _E		39	49	*********				ANTS ST W (USCOS
		е _Е		49	33					
		eLRN	07	04	22					
		F	08							
50								22		
30	25		00	00	45					41 ¹ / ₂ ⁰ N 70 [°] E (USCG
		MN		03	30	7	16			Microseismic agi
	21	F	00	25						
51	27	e.,	07	10						
		Е F		12	06					$45\frac{1}{2}^{\circ}N$ 151°E (USC)
			08	15						Microseismic agi
52	Nov. 8	eLg _N	14	31	06					44°N 140 ¹ °E (USC
		MNE		35		18	0.1	24	1	
		F	15	05			21	24		Microseismic agi
3	15	^{i P} NEZ	17	14	05					$37\frac{1}{2}^{\circ}$ N $20\frac{1}{2}^{\circ}$ E (USC)
		iZ			29					$\Delta = 2780 \text{ km}$
		i PPPZ			52					
		iS _E		18	24				C	Compression

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No.	Date	Phase	Tim	e ((GMT)	Period	Amp A _N	litu A _F	de µ A ₇	Remarks
-			h.	m.	s.					
(53)	Nov.15	i:N	17	24	54	1.7				
	(cont.)	iNE		25	51		1.6			
		1 _E		26	51					
		F	18	20						
6.2				935	40					- 0 - 0
54	19	eLQN	11	57	55		2.4			$5\frac{1}{2}^{\circ}S$ 146°E (USCGS)
		F	12	30						
55	26	eN	23	48	55					5 ¹ / ₂ °S 103°E (USCGS)
		eLN		59	00				*****	
		MN	24	07		24	32			
		F	24	30						
		_								
56	30	eLN	11	35	20					$44\frac{1}{2}^{\circ}N$ $80\frac{1}{2}^{\circ}E$ (USCGS
		F	11	45						Microseismic agit.
57 De	Dec. 2	eLN	10	26	28				******	1°S 123°E (USCGS)
		F	11							
		-								
58	8	eL _N	13	49	06					$42^{\circ}N 44\frac{1}{2}^{\circ}E$ (USCGS)
		F	14							
59	14	ePSN	23	52	34					$59\frac{1}{2}^{\circ}S$ $31^{\circ}W$ (USCGS)
		SSN		59	09				******	Microseismic agit.
	15	eN	00	04	29					
		eLQNE		13	00					
		ME		29		19		22		
		M _N F		32	30	19	33			
		r	01	15						
0	21	ePS _{N(E)}	11	37	11					14 [°] N 52 [°] E (USCGS)
		SSNE		40	56					Microseismic agit.
		eLE		48	35					
		MIN		57		20	54			
		^M E		58		19		33		
		M _{2N}	12	01	30	12	13			
		F	12	25						
1	27	eS _{NE}	16	11	55					56 [°] N 162 ¹ / ₂ °E (USCGS)
		e(SS) _N		16	25					Microseismic agit.
		eLQE		19	04					agit.
		eLRN		22	55					

		1959					÷,				10.
1	No.	Date	Phase	Tim	e (G	MT)	Period	Amp A _N	litu A _E	de µ. A _Z	Remarks
	(61)	Dec. 27 (cont.)	^M E ^M N F	h. 16 17	m. 33 37 20	s. 30	17 17	16	16		
	62	28	^{eLg} 2N ^M N F	07 08 08	56 08 40	40	16	14			52 ¹⁰ N 160 ⁰ E (USCGS) Microseismic agit.
:530			· · · · · · · · · · · · · · · · · · ·								