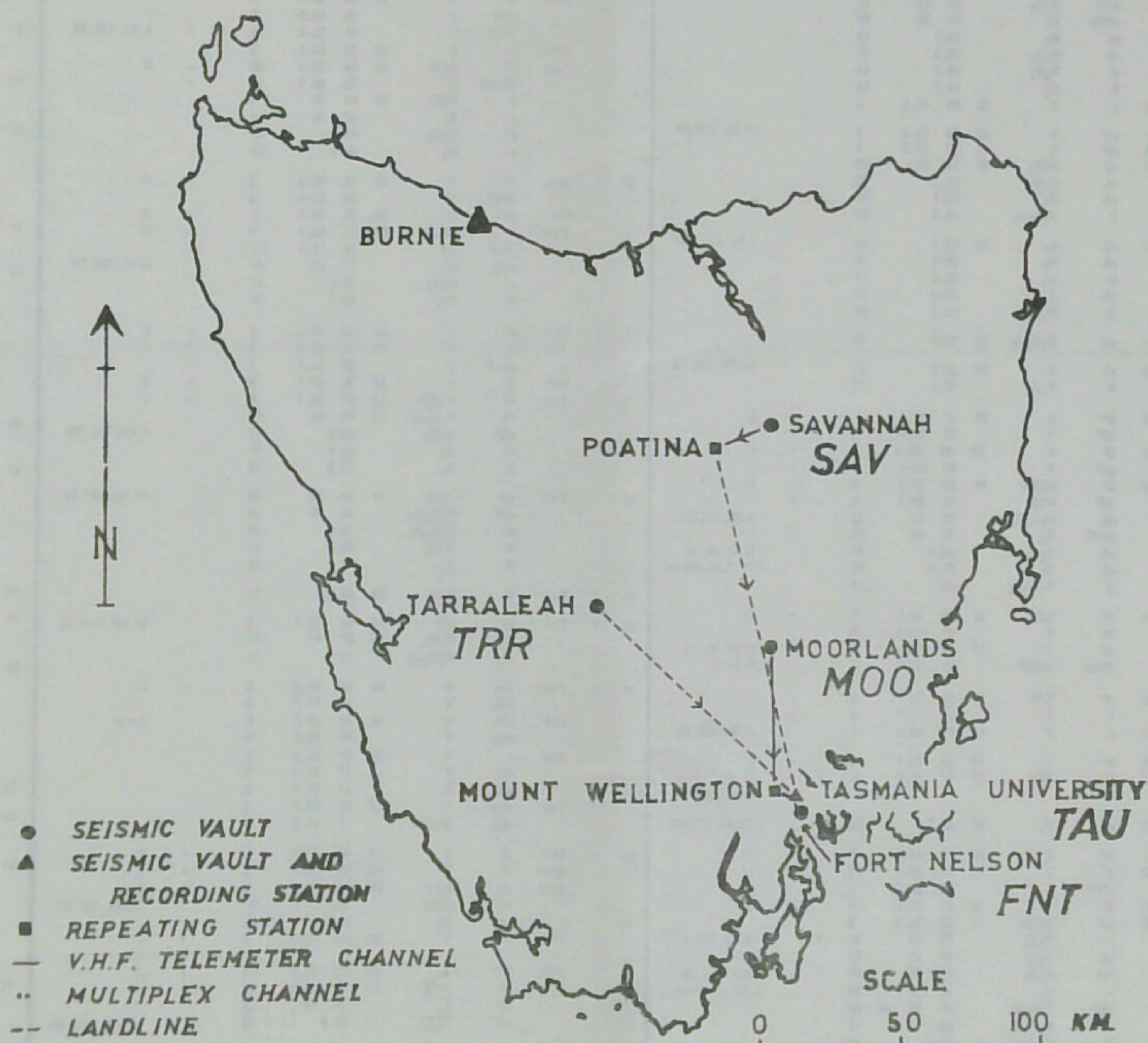




Box 252c, G. P. O.,
Hobart, Tasmania.
Jan. '63

GEOLOGY DEPARTMENT
TASMANIA UNIVERSITY SEISMIC NET
BULLETIN



Station data and instrument notation
are given on back page.

JUN 21 1965

TASMANIA UNIVERSITY SEISMIC NET

STATION	CODE	LATITUDE	LONGITUDE	ALTITUDE (metres)	FOUNDA
Tasmania University	TAU	42°54'35.74"S	147°19'13.54"E	132.2	Dolerite
Fort Nelson	FNT	42°55'35.39"S	147°21'13.02"E	184.1	Dolerite
Moorlands	MOO	42°26'33.31"S	147°11'29.26"E	324.6	Top cont dolerit
Tarraleah	TRR	42°18'16.34"S	146°27'03.51"E	579.1	Basalt
Savannah	SAV	41°43'17.59"S	147°11'22.41"E	179.8	Dolerite

INTER-STATION	DISTANCE (metres)	BEARING	BACK BEARING
TAU – FNT	3276	124°11'38"	304°10'17"
TAU – MOO	52981	348°26'47"	168°32'02"
TAU – TRR	98047	313°00'39"	133°35'58"
TAU – SAV	132445	355°16'59"	175°22'17"
FNT – MOO	55375	346°03'28"	166°10'04"
FNT – TRR	101285	312°42'15"	133°18'55"
FNT – SAV	134526	354°10'30"	174°17'08"
TRR – MOO	62891	104°21'43"	283°51'46"
MOO – SAV	80089	359°53'12"	179°53'17"
TRR – SAV	89086	43°27'34"	223°07'44"

INSTRUMENTS AND NOTATION

USCGS standard set (three Benioff short period (N,E,Z), and three Sprengnether long period (N₁,E₁,Z₁), seismometers) is installed at TAU.

Other instruments include Willmore (V), Hall-Sears (Z¹), Newstead-Watt (N¹,E¹) and Sprengnether (Series H), currently operating as indicated within.

International
Seismological
Centre

No.	Date	Stn.	Phase	Comp.	Time (GMT)	Per.	Amp.	Remarks
					h m s	s	m x z	
1	1	SAV TRR	eP	V	12 24 22.5	1	-	6.8S, 155.9E
			iP	V	12 24 27.5	1/2	-	D
			iPeP	V	26 49.0	N	+	
			eScP	V	30 24.0	1	+	
		TAU	iP	NEZ	12 24 32.2	N	-	D
			iPeP	Z	26 50.6	1	+	
			iScP	Z	30 25.4	1	+	
			eL	N ₁ E ₁	33.6	29		
			eL	Z ₁	35.2	32		
2	1	SAV TAU TRR	iP	V	16 34 48.0	1	+	C
			iP	NZ	16 34 49.0	1/2	+	C
			iP	V	16 34 53.5	1	+	C
								20.0S, 175.4W
3	1	TRR TAU	e(P)	V	19 44 34.0	1		40.2S, 81.3E
			eS	N ₁ E ₁ Z ₁	51 34	20		
			e(SS)	N ₁	54 29	32		
			eL	N ₁ E ₁	56.2	47		
			eL	N ₁ E ₁ Z ₁	58.8	29		
4	2	TAU	e(SS)	N ₁ E ₁	00 13 19	18		56.6N, 157.7W
			eG	N ₁ E ₁ Z ₁	24.2	52		
5	2	TAU	eL	N ₁ E ₁ Z ₁	03 42.7	25		5.8S, 150.0E
6	2	TRR SAV TAU	eP	V	15 03 43.5	1/2		4.1S, 135.2E
			eP	V	15 03 44.0	1		
			eP	NEZV	15 03 45.7	N		
			iPeP	Z	05 32.7	1 1/4	+	
			e(S)	N ₁ E ₁	09 43	28		
			e(SS)	E ₁	12 38	80		
			eL	E ₁	14.1	43		
			eL	N ₁ Z ₁	15.1	38		
			M	N ₁ E ₁	18.1	16		
			M	Z ₁	19.7	14		
		MOO	e	V	15 03 49.5	1		
7	2	SAV TRR TAU	eP	V	16 05 59.0	1		52.9S, 118.2W
			eP	V	16 05 59.0	1		
			eS	N ₁ E ₁	16 14 06	28		
			eL	N ₁ E ₁	21.3	35		
			eL	Z ₁	22.4	25		
			M	N ₁ E ₁ Z ₁	24.5	23		
8	2	TAU	eL	E ₁	18 18.1	44		4.3S, 135.2E
			eL	N ₁	20.4	35		
			M	E ₁	21.8	17		
			eL	Z ₁	22.0	19		
			M	N ₁ Z ₁	22.4	16		
9	2	TAU	eL	N ₁ E ₁ Z ₁	20 52.3	28		
10	3	TAU	eL	E ₁	03 38.0	41		29.7N, 130.1E
			M	N ₁ Z ₁	47.1	22		
11	3	TRR MOO TAU	iP	V	09 46 52.5	1	+	C
			iPeP	V	47 05.0	1	+	C
			iP	V	09 46 53.0	1	+	C
			iPeP	V	47 06.0	1	+	C
			iP	NEZV	09 46 57.2	1/2	+	C
			iPeP	NZV	47 09.5	1/2	- +	
			eS	N ₁ E ₁ Z ₁	52 41	32		5.3S, 151.5E
			e(SS)	Z ₁	55 40	22		
			eL	N ₁ E ₁	55.7	49		H 09 39 47
			eL	Z ₁	57.6	45		Δ37°.6, h0.005ca
			M	N ₁ E ₁ Z ₁	59.7	24		
12	3	TAU	iP	EZV	12 46 53.5	1/2	+	C
			eS	V	49 03.0	N		
			eT	V	13 00 34.5	N		H 12 44 11
			Tmax	NEZV	01 34.0	N		Δ11°.3
13	3	TAU TRR	iP	EZV	14 03 34.2	N	-	D
			i	V	03 46.0	N	-	
			e	V	14 03 38.5	1		6.9S, 155.2E
14	3	TRR TAU	iP	V	19 19 52.5	N	-	D
			iP	NZV	19 19 55.6	1	+	-
								5.9S, 155.0E
15	4	TAU	eL	Z ₁	06 58.2	22		32.6S, 178.6W
16	4	SAV TRR MOO TAU	iP	V	12 23 45.0	1/2	-	D
			iP	V	12 23 50.5	N	-	D
			e(PP)	V	25 15.5	1		
			iP	V	12 23 51.5	N	-	D
			eP	NEZV	12 23 53.5	1/2		
			i	N ₁ Z ₁	25 59	15	+	4.7S, 154.0E
			eS	N ₁ E ₁	29 43	23		
			iaS	N ₁ E ₁	30 06	20	+	
			e	Z ₁	30 30	40		H 12 16 38
			iss	N ₁ E ₁ Z ₁	32 48	45	+	Δ38°.3, h0.005ca
			eL	N ₁ E ₁ Z ₁	34.7	45		
			M	N ₁ Z ₁	35.6	36		
			M	E ₁	37.1	17		
17	5	TRR TAU MOO	eP	V	00 28 55.0			3.2N, 127.0E
			eP	V	00 29 02.5	N		
			i	Z	29 08.3	N	-	
			e	V	00 29 07.0	1		
18	5	TAU	eS	N ₁ E ₁ Z ₁	13 16 06	18		17.0S, 167.9E
			eSS	N ₁	17 46	24		
			eL	E ₁	18.1	24		
			eL	N ₁ Z ₁	19.1	29		
			M	N ₁ E ₁ Z ₁	21.8	14		
19	5	TRR MOO TAU	eP	V	13 23 58.0	N		10.0S, 124.0E
			i	V	25 34.5	N		
			e	V	26 08.5	1 1/2		
			eP	V	13 24 03.0	1		
			eP	NEZV	13 24 05.6	N		
			i	NEZV	25 35.2	N		
			iS	N ₁ E ₁ Z ₁	30 14	24	+	-
			eL	N ₁ E ₁ Z ₁	35.0	37		
			M	N ₁ E ₁ Z ₁	41.7	14		
20	6	SAV TRR TAU	iP	V	03 27 50.5	N	+	C
			iP	V	03 27 52.0	1	+	C
			iP	V	03 27 59.0	N	+	C
			e	N ₁ E ₁	37 15	39		
			eL	N ₁ E ₁ Z ₁	42.1	55		6.0N, 125.3E
21	6	MOO TRR TAU	iP	V	15 31 53.5	1	+	C
			iP	V	15 31 54.0	1	+	C
			iP	Z	15 31 57.2	1	+	C
			eS	N ₁ E ₁	37 22	15		
			eL	E ₁	41.3	44		4.9S, 153.8E
			eL	N ₁ Z ₁	43.3	35		
22	6	SAV TRR MOO TAU	iP	V	19 54 21.5	1	-	D
			iP	V	19 54 23.5	1	-	D
			ePP	V	55 53.5	1		
			iPeP	V	56 33.0	1/2	+	0.9S, 123.8E
			eP	V	19 54 24.5	N		
			iP	NEZ	19 54 29.4	1 1/4	-	D
			i(PeP)	Z	56 40.5	1 1/2	+	
			e	N ₁ E ₁	20 01 00	8		
			e	Z ₁	02 54	16		
			eL	E ₁ Z ₁	05.3	49		
			eL	N ₁	06.5	38		
23	7	TRR MOO TAU	iP	V	06 31 50.0	N	-	D
			ePeP	V	34 11.0	N		
			iP	V	06 31 50.5	1	-	D
			iP	NEZV	06 31 53.7	N	-	D
			iPeP	ZV	34 12.1	1		
			e(S)	N ₁	37 53	31		6.4S, 154.7E
			eL	N ₁ Z ₁	40.5	47		
			M	N ₁ Z ₁	43.5	32		
24	7	SAV TRR MOO TAU	iP	V	11 56 45.5	1	+	C
			iP	V	11 56 47.5	1	+	C
			ePeP	V	58 24.0	1		
			iP	V	11 56 50.0	N	+	C
			iP	NEZV	11 56 54.1	N	+	C
			eS	N ₁ E ₁ Z ₁	12 03 46	42		
			eG	N ₁ E ₁	08.8	61		0.6N, 126.7E
			eL	Z ₁	11.4	39		
			M	Z ₁	15.5	28		
25	7	TAU	eS	N ₁ E ₁	19 30 53	25		17.5S, 167.7E
			eSS	N ₁ E ₁ Z ₁	32 39	16		
			eL	N ₁ E ₁ Z ₁	34.0	23		
			M	N ₁ E ₁	36.8	15		
			M	Z ₁	41.0	14		
26	8	TAU	eL	E ₁ Z ₁	13 53.2	18		
27	8	TAU	eP	ZV	15 58 12.0	N		31.2N, 130.2E
			eS	N ₁ E ₁	16 07 41	19		
			eL	N ₁ E ₁ Z ₁	18.2	21		
28	8	TRR SAV MOO TAU	iPa	V	21 46 47.5	N	-	D
			eSg	V	47 11.5	1/2		
			ePa	V	21 46 49.0	N		Local
			eSg	V	47 19.0	N		
			e	V	21 46 57.0	1		
			(e)	V	47 27.5	2		
			eSg	V	47 32.0	N		
			ePa	V	21 47 03.0	N		
			eSg	NEZV	47 41.5	1/2		
29	9	SAV MOO TAU TRR	iP	V	02 08 55.0	1	+	C
			iP	V	02 08 56.0	N	+	C
			iP	EZV	02 08 56.9	N	+	C
			eL	N ₁ E ₁	16.1	37		28.9S, 177.4W
			eL	Z ₁	17.7	26		
			iP	V	02 09 01.0	1	+	C
30	9	TRR TAU	iP	V	03 23 19.0	1 1/2	+	C
			iP	NEZV	03 23 22.5	N	+	C
			eS	E ₁	31 28	16		
			eL	N ₁ E ₁	38.6	38		18.6N, 145.4E
31	9	TAU	eL	N ₁ E ₁ Z ₁	07 12.0	26		10.3S, 124.0E
32	9	TAU	eL	N ₁ E ₁ Z ₁	11 58.0	24		20.0S, 168.7E
33	9	TAU	eL	N ₁	19 08.5	42		7.3.3S, 29.4E
			eL	E ₁ Z ₁	14.0	42		
34	9	SAV TAU MOO TRR	iP	V	21 44 53.0	N	+	C
			iP	ZV	21 44 55.1	N	+	C
			eP	V	21 44 56.0	N		
			eP	V	21 44 57.5	N		16.6S, 174.0W

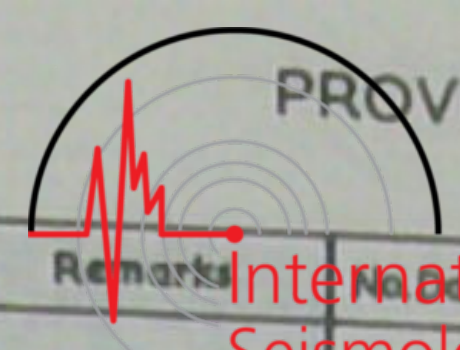
[illegible]

tions quoted are those given by U.S.C.G.S.

Seismograms read by Lesley Read.



Imp.	Remarks	No.	Date	Stn.	Phase	Comp.	Time (GMT)	Per.	Amp.	Remarks	No.	Date	Stn.	Phase	Comp.	Time (GMT)	Per.	Amp.	Remarks	
							h m s									h m s				
1 2 2	22.6 S, 170.8 E	246	25	THR	IP	V	22 56 35.5	1	-	D	259	28	TAU	eL	N ₁ E ₁ Z ₁	14 42.9	28			
-	D			SAV	IP	V	22 56 47.0	1	+	D	260	28	TAU	IP	NEZ	23 35 28.6	1	-	D	
-	D				IP	V	22 56 38.0	1	-	D				IPeP	Z	38 24.4	1	-		
-	D			MOO	eP	V	22 56 39.5	1	-	0.7 N, 96.5 E				e(S)	E ₁	40 52	24	-	29.6 S, 177.5 W	
-	D			TAU	IP	NEZV	22 56 41.7	1	-	D				eL	E ₁	44.0	29	-		
-					IP	ZV	22 56 52.3	1	+					M	E ₁	45.2	12	-		
-					IP	E	22 56 56.5	1	-											
-	19.9 S, 179.1 W				eL	E ₁ Z ₁	23 22.5				261	29	TAU	eL	E ₁	05 56.2	21	-		
-											262	29	SAV	eP	V	06 12 01.0	1	-	10.3 S, 160.7 E	
-	11 04 43 14	247	26	TAU	IP	ZV	08 58 00.8	1/2	-	D			THR	IP	V	06 12 06.0	1	+	C	
-	Δ36° 1, h 0.10	248	26	SAV	eP	V	09 54 32.5	1	-	4.2 S, 152.6 E			TAU	IP	ZV	06 12 08.9	1	+	C	
-				TAU	IP	NEZV	09 54 33.1	1	-	C				eS	N ₁ E ₁	17 46	15	-		
-	D				IP	E ₁	55 43	23	-		263	29	SAV	eP	V	21 22 53.0	1	-		
-					IPeP	NEZV	57 35.5	1/2	+	29.7 S, 177.8 W			TAU	IP	ZV	21 22 53.1	1	-	D	
-					IPeP	V	57 59.0	1/2	-					eL	E ₁	31.2	31	-		
-					i	E ₁	58 32	38	-				MOO	eP	V	21 22 53.5	1	-	30.2 S, 177.7 W	
-	19.6 S, 179.3 W				iS	N ₁ E ₁ Z ₁	59 33	24	-	11 09 48 18	264	29	TAU	eL	E ₁	22 20.4	27	-		
-					iS	E ₁ Z ₁	10 00 00	34	+	Δ31° 0, h 0.00 ca	265	30	SAV	IP	V	01 59 17.5	1	-	D	
-	11 04 45 55				iScP	NEZV	01 14.5	1/2	-					eP	V	02 02 23.5	1/2	-		
-	Δ35° 5, h 0.10				iSS	E ₁ Z ₁	01 23	35	-				MOO	IP	V	01 59 22.0	1/2	-	D	
-					iL	N ₁ E ₁ Z ₁	02 7	41	-					IPeP	V	02 02 22.0	1/2	-		
-					eL	NEZV	03.2	30	-				TAU	IP	NEZV	01 59 24.3	1/2	+	D	
-	46.4 N, 154.5 E				eW ₂	N ₁	12 06.9	81	-					ePP	N ₁ E ₁ Z ₁	02 00 26	11	-		
-				MOO	IP	V	09 54 33.5	1	+	C				IPeP	NEZV	02 02 24.0	1	-	19.1 S, 169.1 E	
-	11.9 N, 93.1 E				IPeP	V	57 35.5	1	+					iS	N ₁ E ₁ Z ₁	04 08	22	-		
-	2.4 N, 138.4 E				iScP	V	10 01 16.5	1	-					eL	N ₁ E ₁ Z ₁	06.0	22	-	11 01 53 30	
-					eL	V	03.0	29	-					M	N ₁	06.7	29	-	Δ29° 8, h 0.02	
-				THR	eP	V	09 54 39.5	1/2	-					M	E ₁ Z ₁	07.9	39	-		
-					eScP	V	10 01 21.0	1/2	-					iScS	E ₁	09 48	12	+		
-				TAU	eP	V	12 57 50.5	1/2	-	29.9 S, 177.6 W			THR	IP	V	01 59 25.0	1	-	D	
-					epP	ZV	58 05.5	1/2	-					IPeP	V	02 02 22.5	1/2	-		
-				SAV	IP	V	13 31 14.5	1/2	+	C	266	30	TAU	eL	N ₁	11 50.7	20	-	30.1 S, 176.9 W	
-				TAU	IP	NEZV	13 31 15.1	1/2	-	C				eL	E ₁ Z ₁	53.4	21	-		
-					eP	V	34 11.9	1/2	+	29.8 S, 177.9 W				M	N ₁	57.8	15	-		
-					i	V	34 15.5	1/2	+					M	Z ₁	59.8	18	-		
-					e	E ₁	35 12	38	-				SAV	IP	V	17 04 34.0	1	-	D	
-					iS	E ₁ Z ₁	36 14	25	-					i	V	04 52.0	1	-		
-					iS	N ₁ E ₁ Z ₁	36 32	27	+	11 13 25 01			THR	IP	V	17 04 38.0	1	-	D	
-					iSS	N ₁ E ₁ Z ₁	37 50	35	-	Δ30° 7, h 0.00 ca			MOO	eP	V	17 04 38.0	1	-	D	
-					iL	N ₁ E ₁ Z ₁	39.8	31	-				TAU	IP	ZV	17 04 39.6	1/2	-	D	
-					M	E ₁ Z ₁	40.3	29	-					eSKS	N ₁ E ₁ Z ₁	15 10	29	-		
-					eW ₂	N ₁ Z ₁	15 43.3	77	-					eL	N ₁ E ₁	28.2	29	-	44.2 N, 148.0 E	
-				MOO	IP	V	13 31 15.0	1	+	C				eL	N ₁ Z ₁	32.3	40	-		
-					IPeP	V	34 13.0	1/2	+					M	N ₁ E ₁	35.5	28	-		
-					e	V	38 05.5	1	-				SAV	IP	V	17 08 39.0	1/2	+	C	
-				TAU	IP	V	20 12 24.5	1/2	-	D			THR	IP	V	17 08 39.0	1	+	C	
-					i	V	12 56.0	1	-				TAU	IP	ZV	17 08 40.5	1/2	+	C	
-				SAV	IP	V	21 46 38.5	1	+	C	269	30	TAU	eL	E ₁ Z ₁	21 57.3	38	-	8.7 S, 109.2 W	
-				THR	IP	V	21 46 40.5	1	+	C	270	31	TAU	eL	N ₁ E ₁	05 21.2	15	-		
-				MOO	IP	V	21 46 42.0	1	+	C	271	31	SAV	IP	V	05 37 02.5	1/2	-	D	
-				TAU	IP	NEZV	21 46 44.9	1/2	+	C				eScP	V	43 50.5	1/2	-		
-					IPeP	V	46 51.0	1/2	+				TAU	IP	NEZV	05 37 02.6	1	+	D	
-					iS	N ₁ E ₁ Z ₁	56 46	34	+	36.0 N, 135.7 E				ePP	E ₁ Z ₁	38 10	24	-		
-					i	N ₁ Z ₁	57 17	14	-					IPeP	NEZV	39 59.9	1/2	-	29.9 S, 177.7 W	
-					eSS	N ₁ E ₁	22 01 52	40	-	11 21 34 36				i(S)	N ₁ E ₁ Z ₁	42 14	24	-		
-					eG	N ₁ E ₁	07.6	60	+	Δ80° 2, h 0.00				e	E ₁	42 28	23	-		
-					eL	N ₁ E ₁ Z ₁	10.0	44	-					eScP	ZV	43 50.9	1	-		
-					M	E ₁	10.9	44	-					eL	N ₁ E ₁ Z ₁	44.0	33	-		
-					M	N ₁ Z ₁	18.5	24	-				MOO	IP	V	05 37 03.0	1	-	D	
-					eW ₂	E ₁	23 32.3	83	-					IPeP	V	40 00.5	1	-		
-				TAU	IP	V	20 33 05.5	1/2	-	D				eScP	V	43 52.5	1/2	-		
-					eL	N ₁ E ₁ Z ₁	38.6	32	-				THR	IP	V	05 37 07.5	1	-	D	
-				TAU	eL	N ₁ E ₁ Z ₁	21 56.6	20	-					eScP	V	40 01.5	1/2	-		
-				SAV	IPKP	V	00 36 07.0	1/2	-	D	272	31	SAV	IP	V	07 14 31.0	1	-	D	
-				MOO	IPKP	V	00 36 09.0	1/2	-	D			THR	IP	V	07 14 35.0	1	-	D	
-				THR	IPKP	V	00 36 09.0	1/2	-	D			MOO	IP	V	07 14 36.5	1/2	-	D	
-				TAU	IPKP	Z	00 36 11.8	1/2	-	D			TAU	IP	NEZV	07 14 40.4	1/2	-	D	
-					ePP	Z ₁	39 49	12	-					iS	N ₁ E ₁ Z ₁	20 23	26	-		
-					e	N ₁ Z ₁	45 07	25	-	66.3 N, 19.6 W				i	Z ₁	22 05	24	+	6.1 S, 149.0 E	
-					e	E ₁	46 52	24	-					iSS	Z ₁	23 17	21	+		
-					eSS	N ₁ E ₁ Z ₁	59 15	42	-					eL	N ₁ E ₁ Z ₁	23.3	32	-		
-					eSSS	N ₁ E ₁	01 05 15	45	-					M	E ₁	25.9	28	-		
-					e	Z ₁	06 24	35	-					M	N ₁ Z ₁	30.3	18	-		
-					eG	N ₁ E ₁ Z ₁	19.5	76	-				SAV	IP	V	09 13 30.5	1	-	D	
-					eW ₂	N ₁ E ₁	42.0	70	-				TAU	IP	NEZV	09 13 31.5	1/2	+	D	
-					eW ₃	N ₁ E ₁	03 55.6	121	-					eL	N ₁ E ₁ Z ₁	21.2	42	-		
-					eW ₄	E ₁	04 12.9	134	-				MOO	IP	V	09 13 31.0	1	-	D	
-				SAV	eP	V	01 37 06.0	1/2	-	16.0 S, 131.9 E				IPeP	V	16 30.5	1	+		
-				THR	IP	V	01 37 09.0	1	-	D				THR	eP	V	09 13 35.0	1	-	30.1 S, 177.7 W
-				TAU	IP	EZV	01 37 15.1	1/2	-	D				IPeP	V	16 30.0	1/2	+		
-				TAU	eL	Z ₁	07 06.4	16	-	40.9 S, 84.2 W			TAU	IP	NEZV	19 29 03.9	1/2	+	C	
-					IP	NEZV	11 18 41.2	1	+	C				eP	V	32 02.1	1/2	-		
-					IP	E ₁ V ₁	19 51.5	1/2	+					eS	E ₁	34 07	15	-	30.0 S, 178.0 W	
-					IPeP	NZV	21 40.4	1/2	-	30.2 S, 177.8 W				e	N ₁ Z ₁	34 27	32	-		
-					eS	N ₁ E ₁ Z ₁	23 44	28	-					eL	N ₁ E ₁ Z ₁	35.8	32	-	11 19 29 46	
-				</																



No.	Date	Stn.	Phase	Comp.	Time (GMT)	Per.	Amp.	Remarks	No.	Date	Stn.	Phase	Comp.	Time (GMT)	Per.	Amp.	Remarks	No.	Date	Stn.	Phase	Comp.	Time (GMT)	Per.	Amp.	Remarks	
					h m s	s	m x z							h m s	s	m x z											
98	1	TRR	IP	V	09 51 47.0	1	+	C	116	8	TAU	IP	V	02 35 21.5	1	-	D	131	14	TAU	eL						
		TAU	IP	V	09 51 49.0	1	+	C				eL	N ₁ E ₁	42.9	22												
								8.5S, 159.1E				eL	Z ₁	43.1	17			26.9S, 176.7W									
99	2	SAV	IP	V	04 58 13.5	1	+	C				M	E ₁ Z ₁	49.5	18												
		TAU	eL	N ₁ E ₁ Z ₁	05 09.3	20		C				M	N ₁	50.6	12												
								16.2S, 178.0E																			
100	2	TAU	eP	V	11 55 42.5	1			117	8	TAU	IP	NEZV	18 24 17.1	1	+	C	131	14	TAU	eL						
								19.7S, 174.6W									12.9S, 170.2E										
101	3	SAV	eP	V	01 53 53.5	1			118	9	TAU	eL	N ₁ E ₁ Z ₁	04 27.9	28		36.4N, 137.9E	132	14	TAU	eL						
		MOO	eP	V	01 53 55.0	1																					
		TAU	IP	NEZV	01 53 56.2	1		D																			
		TRR	IP	V	01 53 59.0	1		D																			
102	3	TAU	eL	N ₁ E ₁ Z ₁	08 39.2	24			119	9	TAU	eS	E ₁ Z ₁	17 04 38	12		35.9S, 177.9E	133	14	TAU	eL						
												e	N ₁	05 09	19												
												eL	E ₁ Z ₁	06.3	31												
												M	N ₁	10.5	12												
103	4	TRR	IP	V	01 24 00.5	1	-	D	120	9	TAU	eL	N ₁ Z ₁	19 19.2	21			134	14	TAU	eL						
			IP	V	01 24 10.5	1	+																				
		SAV	e	V	01 24 02.5	1																					
		TAU	IP	NEZV	01 24 07.5	1	-	D	121	11	TAU	IP	ZV	04 41 44.8	1	-	D	135	14	TAU	IP						
			eS	N ₁	29 51	28											29.8S, 179.1E										
			eL	N ₁ Z ₁	33.9	40																					
			M	N ₁ Z ₁	44.9	12																					
		MOO	e	V	01 24 08.5	1																					
104	4	TAU	eL	N ₁ E ₁	15 17.4	24		17.3S, 167.9E	122	11	TAU	eL	N ₁ E ₁	12 39.8	31		15.7S, 174.7W										
			eL	Z ₁	19.7	15						eL	Z ₁	42.1	31												
			M	N ₁ E ₁ Z ₁	21.2	14			123	11	TAU	eL	N ₁ E ₁ Z ₁	21 24.3	24			136	14	TAU	eL						
105	4	TRR	eP	V	23 34 06.5	1		48.5N, 154.9E	124	12	TAU	IP	NEZV	23 14 01.2	1	-	C										
			epP	V	34 25.5	1						IPeP	ZV	16 01.0	1	+	17.8S, 178.6W										
		SAV	epP	V	23 34 21.5	1						eS	E ₁ Z ₁	19 11	23		H 23 07 34	137	15	TAU	IP						
												eSS	E ₁ Z ₁	22 29	22		Δ37°.7, h 0.09										
106	5	TAU	IP	V	19 35 20.0	1	-	D	125	13	TAU	IP	NEZV	00 19 07.8	1	-	D										
								31.9S, 179.0W				i	ZV	19 09.4	1	-											
107	5	TAU	eSKS	N ₁ E ₁ Z ₁	21 02 52	17		38.4S, 73.2W	126	13	TAU	IP	NEZV	09 01 19.0	1	+	C	138	15	TAU	eL						
			ePS	N ₁	04 23	24						IP	V	01 28.0	1	+											
			eSS	N ₁ E ₁ Z ₁	09 22	17						IPeP	ZV	01 40.5	1	-	24.5N, 121.8E										
			e	E ₁	15 50	47						e	N ₁ Z ₁	03 46	27			139	15	TAU	eL						
			eL	N ₁ E ₁ Z ₁	20.6	29						ePP	E ₁	03 59	28												
			M	N ₁	26.3	19						iS	N ₁ E ₁ Z ₁	10 35	19	- + -	H 08 50 00	140	15	TAU	eP						
			M	Z ₁	31.5	14						iSKS	N ₁ E ₁	11 17	39	+	Δ71°.8, h 0.00										
												iSS	N ₁ E ₁ Z ₁	15 04	29	- -		141	15	TAU	eL						
108	6	TAU	eS	N ₁ E ₁	10 34 06	36		3.5S, 146.0E				iSSS	N ₁ E ₁ Z ₁	18 19	24	- + -											
			eSS	E ₁	37 00	20						i(L)	N ₁	19 02	47			142	16	TAU	IP						
			eL	N ₁ E ₁ Z ₁	37.8	55						eL	E ₁	20.2	54												
			M	E ₁	41.7	21						iL ₇	Z ₁	23.8		-											
			eL	N ₁ Z ₁	44.5	20						M	E ₁	27.6	31												
			M	N ₁ Z ₁	46.3	16						iSKKS	N ₁ Z ₁	27 59	22	-		143	16	TAU	eL						
109	6	TAU	eL	N ₁ E ₁ Z ₁	19 03.8	39		55.6N, 166.1E				M	Z ₁	32.6	21												
												eW ₂	N ₁ E ₁	10 52.8	83												
												eW ₃	E ₁	11 57.4	53												
110	6	TAU	IP	ZV	20 59 01.0	1	+	C	127	13	TAU	IP	NEZV	18 20 47.6	1	-	D	144	16	TAU	IP						
								56.7S, 28.8W				IPeP	V	20 57.0	1	-											
												iS	N ₁ E ₁ Z ₁	26 14	17	+	9.9S, 160.8E										
												iSS	N ₁ E ₁ Z ₁	28 34	24	+											
111	6	TAU	eL	N ₁ Z ₁	21 36.3	18						iL	E ₁	29.4	23	+	H 18 14 00	145	17	TAU	eP						
												M	Z ₁	36.4	13		Δ34°.6, h 0.00										
112	7	TAU	IP	EZ	01 30 15.6	1	+	C	128	14	TAU	eS	N ₁ E ₁	07 00 52	5		10.1S, 160.3E										
								17.7S, 178.7W				eL	N ₁ E ₁ Z ₁	03.4	20			146	17	TAU	IP						
113	7	TAU	IP	NEZ	03 33 36.7	1	+	D				M	N ₁ E ₁	06.2	16												
			eL	N ₁ E ₁ Z ₁	36.8	26		59.6S, 147.9E																			
114	7	TAU	eL	N ₁ E ₁ Z ₁	09 24.6	25			129	14	TAU	IP	NEZV	07 11 55.4	1	-	D	147	17	TAU	eP						
												e	N ₁ Z ₁	12 08	10												
												i	N ₁	13 30	5	+	7.2S, 128.2E										
												IPeP	N ₁ E ₁ Z ₁ V	13 37	12	+		148	17	TAU	IP						
												iS	N ₁ E ₁	17 37	11	+											
												i	N ₁ E ₁ Z ₁	17 50	16	- + -											
												e	NEZ	20 36.2	24												
												iSS	E ₁ Z ₁	20 38	32	- -		149	18	TAU	eL						
												eG	N ₁ E ₁	21.6	63												
												eG	Z ₁	23.1	58												
												M	Z ₁	24.2	58												
												M	N ₁ E ₁	25.7	24												
												M	Z ₁	31.6	16												
												eW ₂	E ₁	09 21.5	86												
115	7	TAU	eP	Z	17 15 03.4	1		26																			

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APRIL 1963

ions quoted are those given by U.S.C.G.S.

Seismograms read by Lesley Read.

mp.	Remarks	No.	Date	Stn.	Phase	Comp.	Time (GMT)	Per.	Amp.	Remarks	No.	Date	Stn.	Phase	Comp.	Time (GMT)	Per.	Amp.	Remarks
h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s	h m s
344	18	SAV	eP	V	22	09	11.5	1	1.35, 128.8 E	358	22	THH	iP	V	08	37	35.5	1	C
345	18	MOO	eP	V	22	09	14.0	1	1.75, 128.1 E	359	23	SAV	eP	V	02	51	46.0	1	11.45, 165.9 E
346	19	TAU	eP	V	22	09	15.5	1	9.85, 120.5 E	360	23	THH	eP	V	02	51	53.0	1	C
347	19	SAV	eP	V	07	48	22.0	1	35.8 N, 96.9 E	361	23	TAU	eP	V	02	51	53.0	1	C
348	19	THH	eP	V	07	48	24.0	1	Local	362	23	TAU	eP	V	03	00.2	26	17.85, 178.7 W	
349	19	MOO	eP	V	07	48	26.8	1	1.15, 127.9 E	363	23	SAV	eP	V	15	39	21.5	1	C
350	19	THH	eP	V	16	37	01.0	1	1.35, 128.8 E	364	23	MOO	iP	V	15	39	24.0	1	C
351	19	TAU	eP	V	16	37	05.0	1	1.45, 128.9 E	365	23	TAU	iP	V	15	39	25.0	1	C
352	20	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	366	23	THH	iP	V	15	39	27.5	1	C
353	20	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	367	23	TAU	iP	V	21	54	00.0	1	20.85, 179.1 W
354	21	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	368	23	THH	iP	V	21	54	01.5	1	4.7 N, 122.4 E
355	21	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	369	23	MOO	iP	V	21	54	01.5	1	C
356	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	370	23	TAU	iP	V	21	54	01.5	1	C
357	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	371	23	THH	iP	V	21	54	01.5	1	C
358	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	372	23	MOO	iP	V	21	54	01.5	1	C
359	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	373	23	TAU	iP	V	21	54	01.5	1	C
360	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	374	23	THH	iP	V	21	54	01.5	1	C
361	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	375	23	MOO	iP	V	21	54	01.5	1	C
362	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	376	23	TAU	iP	V	21	54	01.5	1	C
363	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	377	23	THH	iP	V	21	54	01.5	1	C
364	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	378	23	MOO	iP	V	21	54	01.5	1	C
365	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	379	23	TAU	iP	V	21	54	01.5	1	C
366	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	380	23	THH	iP	V	21	54	01.5	1	C
367	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	381	23	MOO	iP	V	21	54	01.5	1	C
368	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	382	23	TAU	iP	V	21	54	01.5	1	C
369	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	383	23	THH	iP	V	21	54	01.5	1	C
370	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	384	23	MOO	iP	V	21	54	01.5	1	C
371	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	385	23	TAU	iP	V	21	54	01.5	1	C
372	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	386	23	THH	iP	V	21	54	01.5	1	C
373	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	387	23	MOO	iP	V	21	54	01.5	1	C
374	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	388	23	TAU	iP	V	21	54	01.5	1	C
375	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	389	23	THH	iP	V	21	54	01.5	1	C
376	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	390	23	MOO	iP	V	21	54	01.5	1	C
377	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	391	23	TAU	iP	V	21	54	01.5	1	C
378	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	392	23	THH	iP	V	21	54	01.5	1	C
379	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	393	23	MOO	iP	V	21	54	01.5	1	C
380	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	394	23	TAU	iP	V	21	54	01.5	1	C
381	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	395	23	THH	iP	V	21	54	01.5	1	C
382	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	396	23	MOO	iP	V	21	54	01.5	1	C
383	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	397	23	TAU	iP	V	21	54	01.5	1	C
384	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	398	23	THH	iP	V	21	54	01.5	1	C
385	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	399	23	MOO	iP	V	21	54	01.5	1	C
386	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	400	23	TAU	iP	V	21	54	01.5	1	C
387	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	401	23	THH	iP	V	21	54	01.5	1	C
388	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	402	23	MOO	iP	V	21	54	01.5	1	C
389	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	403	23	TAU	iP	V	21	54	01.5	1	C
390	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	404	23	THH	iP	V	21	54	01.5	1	C
391	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	405	23	MOO	iP	V	21	54	01.5	1	C
392	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	406	23	TAU	iP	V	21	54	01.5	1	C
393	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	407	23	THH	iP	V	21	54	01.5	1	C
394	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	408	23	MOO	iP	V	21	54	01.5	1	C
395	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	409	23	TAU	iP	V	21	54	01.5	1	C
396	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	410	23	THH	iP	V	21	54	01.5	1	C
397	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	411	23	MOO	iP	V	21	54	01.5	1	C
398	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	412	23	TAU	iP	V	21	54	01.5	1	C
399	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	413	23	THH	iP	V	21	54	01.5	1	C
400	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	414	23	MOO	iP	V	21	54	01.5	1	C
401	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	415	23	TAU	iP	V	21	54	01.5	1	C
402	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	416	23	THH	iP	V	21	54	01.5	1	C
403	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	417	23	MOO	iP	V	21	54	01.5	1	C
404	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	418	23	TAU	iP	V	21	54	01.5	1	C
405	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	419	23	THH	iP	V	21	54	01.5	1	C
406	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	420	23	MOO	iP	V	21	54	01.5	1	C
407	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	421	23	TAU	iP	V	21	54	01.5	1	C
408	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	422	23	THH	iP	V	21	54	01.5	1	C
409	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	423	23	MOO	iP	V	21	54	01.5	1	C
410	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	424	23	TAU	iP	V	21	54	01.5	1	C
411	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	425	23	THH	iP	V	21	54	01.5	1	C
412	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	426	23	MOO	iP	V	21	54	01.5	1	C
413	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	427	23	TAU	iP	V	21	54	01.5	1	C
414	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	428	23	THH	iP	V	21	54	01.5	1	C
415	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	429	23	MOO	iP	V	21	54	01.5	1	C
416	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	430	23	TAU	iP	V	21	54	01.5	1	C
417	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	431	23	THH	iP	V	21	54	01.5	1	C
418	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	432	23	MOO	iP	V	21	54	01.5	1	C
419	22	THH	eP	V	01	01	53.0	1	1.25, 128.9 E	433	23	TAU	iP	V	21	54	01.5	1	C
420	22	MOO	eP	V	01	01	53.0	1	1.25, 128.9 E	434	23	THH	iP	V	21	54	01.5	1	C
421	22	TAU	eP	V	01	01	53.0	1	1.25, 128.9 E	435	23	MOO	iP	V	21	54	01.5	1	C

MAY 1963

Instruments Operating : TAU: N, E, Z, N₁, E₁, Z₁, V; MOO: V; TRR: V.

Note : 1. This bulletin contains only those earthquakes quoted by USCGS as having magnitude 5½ or greater.

2. Epicentre locations quoted are those given by USCGS.



Date	1963	Stn.	Phase	Comp.	Time (G.M.T.)			Per.	Amp.			Remarks
May	1	MOO	iP	V	10	09	14.8	14	N	E	Z	
			iP	V		09	50.7	1				C
			iPcP	V		12	17.6	1				19.0S, 169.0E
			iScP	V		15	51.0	14				
		TRR	iP	V	10	09	17.8	1				C
			iPcP	V		12	17.5	1				
		TAU	iP	NEZV	10	09	18.1	14				C
			iP	N ₁ E ₁ Z ₁ Z		09	52.7	25, 21	-			
			i	E ₂		10	02.7	2		+	-	H 10 03 23.5
			iPP	NEZ		10	22.3	3		-	+	Δ 29°.9, Δ 0.02
			i	N ₁ E ₁ Z ₁		10	31	8	-	-	+	
			iS	N ₁ E ₁ Z ₁		14	02	30	-	+	-	
			i	Z ₁		15	18	21				
			iL	N ₁		15.6		15	-			
			iL	E ₁ Z ₁		16.0		15.63		-	+	
			M	N ₁ E ₁		16.6						
			M	Z ₁		17.6		40				
			e	E ₁	11	05	28	40				
			eSSSS	N ₁ E ₁		34	50	41				
			e(W ₂)	N ₁ E ₁	12	16.5		72				
			e(W ₃)	N ₁		44.2		77				
	6	TAU	eS	E ₁	08	53	19	27				9.1S, 112.5E
			eSS	N ₁ E ₁		56	39	27				
			eL	N ₁ E ₁ Z ₁		59.9		46				
			M	N ₁	09	03.9		22				
			M	Z ₁		08.9		19				
	8	TAU	iP	V	10	34	10.6	1			+	C
			iS	N ₁ E ₁ Z ₁		44	06	36	-	-		
			eSS	N ₁ E ₁ Z ₁		49	07	43				36.6N, 141.0E
			eSSS	E ₁ Z ₁		52	28	28				
			eL	E ₁		53.3		50				
			eL	N ₁ Z ₁		59.4		44				
			M	N ₁ Z ₁	11	01.5		38				
			M	E ₁		05.9		24				
		TRR	i	V	10	34	14.2	1			+	
	8	TAU	(i)	V	15	33	05.6	1			-	5.3N, 125.7E
			iP	V		33	15.3	1			+	
			eSS	N ₁ E ₁ Z ₁		43	46	19				
			eG	N ₁ E ₁		47.1		57				
			eL	Z ₁		49.6		43				
			M	N ₁		51.4		39				
			M	Z ₁		53.6		31				
		TRR	iP	V	15	33	09.3	1			-	D
		MOO	iP	V	15	33	11.2	1			-	D
	10	TAU	ePS	N ₁ E ₁	22	52	29	30				2.2S, 77.6W
			eSS	N ₁ E ₁		59	25	34				
			eG	N ₁ E ₁		11.3		48				
			eL	Z ₁		18.0		26				
			M	N ₁ E ₁ Z ₁		22.1		20				
			eW ₂	N ₁ E ₁	24	04.2		86				
	12	TAU	iP	NEZV	09	46	46.9	14	-	+	-	
			i	Z		46	49.8	2				
			iPP	N		47	02.5	14	-			97.5S, 159.4E
			iS	V		49	44.3	14			+	
			eL	E ₁ Z ₁		50.2		31				
			eL	N ₁		50.8		21				
			M	E ₁		52.2		11				
			M	N ₁		54.8		12				
			M	Z ₁		56.0		13				
			eT	V	10	02	29	1				
			Tmax	V		02	53.8	14				
		MOO	iP	V	09	46	52.7	14			-	D
		TRR	iP	V	09	46	59.6	14			-	D
			i	V		50	17.5	1			+	
			eT	V	10	03	08	14				
	13	TAU	eSS	E ₁	13	21	13	34				14.5N, 92.9W
			eL	N ₁ E ₁ Z ₁		42.4		25				
	13	MOO	iP	V	14	13	38.0	1			-	D
		TRR	iP	V	14	13	39.3	14			-	D
		TAU	iP	NEZV	14	13	40.3	14			-	D
			eL	N ₁ E ₁ Z ₁		20.2		19				19.5S, 169.3E
	15	TAU	eS	N ₁ E ₁ Z ₁	03	06	11	27				3.4S, 146.8E
			eSS	E ₁ Z ₁		09	02	20				
			eL	E ₁		10.0		50				
			eL	N ₁ Z ₁		11.8		38				
			M	E ₁		12.5		28				
			M	N ₁ Z ₁		18.7		18				

May	17	TAU	iP	ZV	22	46	48.8	N	N	E	Z	Remarks
			isP	ZV		47	19.9	1			+	C
			e(S)	E ₁		52	43				+	24.4S, 177.2W
			e(SS)	N ₁		54	33	18				
			eL	E ₁ Z ₁		55.9		35				
	18	TRR	iP	V	12	28	35.3	N			-	D
		TAU	ePP	N ₁ E ₁ Z ₁	12	30	30	22				8.2S, 115.6E
			eS	N ₁ E ₁ Z ₁		35	18	22				
			iSS	N ₁ E ₁ Z ₁		38	46	19				
			eL	N ₁ E ₁ Z ₁		40.1		44				
			M	N ₁		45.7		23				
			M	E ₁ Z ₁		48.5		21				
	19	TAU	iP	NEZ	01	15	30.8	1			-	D
			iSKS	E ₁ Z ₁		25	49	17				46.5S, 75.1W
			iS	N ₁		25	57	11				
			iPS	N ₁ E ₁ Z ₁		26	45	18				
			iSS	N ₁ E ₁		31	20	22				
			iG	N ₁ E ₁		37.7		43				
			eL	Z ₁		41.2		30				
			M	N ₁ E ₁ Z ₁		44.9		20				
			eW ₂	N ₁ E ₁		57.8		61				
		TRR	iP	V	01	15	35.5	1				
	19	TAU	ePKP	Z ₁	21	53	53	11				23.8N, 45.9W
			ePP	E ₁ Z ₁	22	00	09	11				
			e	E ₁		15	11	18				
			eSS	E ₁ Z ₁		19	56	20				
			eSSS	E ₁		25	56	34				
			e	E ₁ Z ₁		34	12	50				
			eSSS	E ₁		35	38	34				
			eG	E ₁		40.5		62				
			eL	Z ₁		51.0		40				
			eW ₂	E ₁		59.3		75				
			M	E ₁	23	00.4		23				
	20	TAU	iP	NEZV	11	44	08.3	1			-	D
			iPP	E ₁ Z ₁		45	18	28				30.7S, 178.3W
			iPP	V		47	19.5	N				H 11 37 38
			iS	E ₁ Z ₁		48	05	22				430°3, h 0.00
			i	E ₁ Z ₁		49	27	26				
			iSP	V		50	48.8	N				
			iL	E ₁ Z ₁		50.9		34				
			M	E ₁ Z ₁		52.9		31				
			e	E ₁	13	14	18	67				
			e	E ₁		50	32	88				
		MOO	iP	V	11	44	09.1	1			-	D
			iPP	V		47	30.0	1				
			iSP	V		50	49.7	15				
		TRR	iP	V	11	44	13.6	1			-	D
			iPP	V		47	12.5	N				
			iSP	V		50	50.6	1				
	22	TAU	iP	NEZ	14	09	51.2	1			-	D
			i	Z		19	05.9	1				48.6N, 154.7E
			eS	E ₁		29	49	33				
			eSP	Z ₁		31	55	37				
			eSS	E ₁		37	03	29				
			eG	E ₁		53.6		48				
			eL	Z ₁		59.6		43				
			M	Z ₁		62.7		26				
	22	TAU	iP	NEZ	22	01	12.1	1			+	C
			iPP	E ₁ Z ₁		03	13	8				8.2S, 115.7E
			iS	E ₁ Z ₁		07	47	20				
			iSS	E ₁ Z ₁		11	10	19				
			eL	E ₁ Z ₁		12.0		45				
			M	E ₁ Z ₁		20.9		20				
	23	TRR	iP	V	15	21	08.8	1			-	D
		MOO	iP	V	15	21	08.1	1			-	D
			iPP	V		23	08.7	1				
		TAU	iP	NEZV	15	21	11.0	1			-	D
			iPP	V		23	12.9	1			+	
			eS	N ₁		28	33	26				6.0N, 126.1E
			eSS	N ₁ E ₁		32	05	40				
			eL	E ₁		35.8		54				
			eL	N ₁ Z ₁		37.4		45				
	27	TAU	ePS	N ₁	04	25	18	28				55.3N, 160.1E
			eSS	E ₁		30	45	28				
			eG	N ₁ E ₁		40.0		45				
			eL	N ₁ Z ₁		44.2		40				
	30	TAU	iP	NEZV	06	58	54.3	N			+	C
			i	V		59	30.7	15			+	
			iS	NN ₁ EE ₁ Z ₁ V	07	00	50	N, 23			+	54.2S, 143.7E
			iL	N ₁ E ₁ Z ₁		01.3		24			+	
			M	Z ₁		01.9		24				
			eT	EZV		09	55	N				
		MOO	i(P)	V	06	59	02.0	1			+	
			i	V		59	26.1	1			+	



PROVISIONAL BULLETIN
JUNE 1963



Instruments Operating : TAU: N, E, Z, N₁, E₁, Z₁, V; MOO: V; TRR: V;
SAV: V (operating intermittently)

Note : 1. This bulletin contains only those earthquakes quoted by USCGS as having magnitude 5½ or greater.

2. Epicentre locations quoted are those given by USCGS.

3. Directions of ground motion are unknown.

Date	1963	Stn.	Phase	Comp.	Time (G.M.T.)			Per.	Remarks
June	1	TAU	iP	ZV	21	21	53.5	¼	15.2S, 173.5W
			eS	N ₁ E ₁ Z ₁		28	25	20	
			eSS	N ₁ Z ₁		31	44	22	
			eL	N ₁ E ₁ Z ₁		32.3		24	
			M	N ₁ E ₁ Z ₁		37.1		18	
		MOO	iP	V	21	21	54.9	1	
	2	TAU	iP	NEZV	10	07	08.7	¼	6.1S, 154.4E
			ePP	N ₁		08	36	17	
			iPcP	ZV		09	27.5	1	H 09 59 59
			iS	N ₁ E ₁ Z ₁		12	53	24	Δ 37.2, h 0.00
			eL	N ₁ E ₁ Z ₁		15.6		34	
			eL _R	N ₁ E ₁ Z ₁		18.2		31	
			M	N ₁ E ₁ Z ₁		19.7		20	
		TRR	i	V	10	07	10.0	½	
		MOO	i	V	10	07	11.9	1	
			iPcP	V		09	27.7	1	
	2	TAU	iP	NEZV	21	16	18.1	1	58.5S, 15.6W
			iS	N ₁ E ₁		26	08	20	
			ePS	N ₁		26	48	15	
			e	Z ₁		27	43	24	
			e	N ₁		30	40	50	
			eSS	E ₁ Z ₁		31	08	24	
			eG	N ₁ E ₁ Z ₁		34.5			
			M	E ₁		43.3		20	
			M	N ₁ Z ₁		47.9		20	
			eW ₂	N ₁	23	01.4		72	
		MOO	i(P)	V	21	16	21.3		
	4	TRR	iP	V	19	31	59.3	½	18.9N, 146.2E
			ipP	V		32	22.6	1	
			i	V		32	34.9	1	
		MOO	ipP	V	19	32	23.7	1	
			iPcP	V		32	41.4	1	
		TAU	iP	NEZV	19	32	03.0	1	
			ipP	ZV		32	26.4	1	
			eL	N ₁		51.7		44	
	6	SAV	iP	V	05	29	41.1	1	19.9N, 120.2E
			ipP	V		29	52.3	2	
		TRR	iP	V	05	29	43.5	1	
			ipP	V		29	54.0	2	
		MOO	iP	V	05	29	45.7	1	
		TAU	iP	NEZV	05	29	48.3	1	H 05 18 57
			ipP	Z		29	59.0	2	Δ 66.9, h 0.00
			eS	E ₁ Z ₁		38	37	17	
			i	N ₁		38	46	15.55	
			e	N ₁ E ₁ Z ₁		43	27	32	
			eG	N ₁ E ₁ Z ₁		48.4		54	
			M	N ₁ Z ₁		58.8		22	

Date	1963	Stn.	Phase	Comp.	Time (G.M.T.)			Per.	Remarks
June	10	TAU	iP	NEZV	04	19	35.5	1,4	55.4S, 146.4E
			e(S)	E ₁		21	41		
			i(L)	N ₁		21	59	20	
			iL	N ₁ E ₁ Z ₁		22.1		13	
			M	E ₁		22.7		13	
			i	N ₁		23	17	13	
			M	NEZ ₁		23.4		14	
			M	Z		25.8		8	
			eT	NEZV		30	56	½	
			Tmax	NEZV		31	30.0	½	
		MOO	iP	V	04	19	42.1	2	
			eL	V		23.4		14	
			M	V		24.3		8	
	10	TAU	iP	NEZV	06	42	03.2	¾,4	55.3S, 146.1E
			i	V		42	17.9	3	
			e(S)	E ₁		44	08	45	
			iL	N ₁ E ₁ Z ₁		44.6		10	
			M	EE ₁ Z ₁		45.7		9	
			i	N ₁		45	48	16	
			M	ZV		48.2		7	
			eT	NEZV		53	07	½	
			Tmax	NEZV		53	49.2	½	
		MOO	iP	V	06	42	10.7	1	
			eL	V		46.1		8	
			M	V		48.5		8	
	17	TAU	iS	N ₁ E ₁ Z ₁	18	41	49	28	65.8S, 179.5W
			iL	N ₁ E ₁ Z ₁		43.1		21	
			M	N ₁		49.6		13	
			M	Z ₁		52.2		13	
	28	MOO	iP	V	22	08	33.2	1	46.5N, 153.2E
			i	V		08	45.6	¾	
		TAU	iP	NEZV	22	08	37.8	1	H 21 55 42 Δ 89°.7, h 0.00
			ipP	V		08	47.4	¾	
			iSKS	N ₁ Z ₁		19	05	17	
			iS	E ₁		19	25	21	
			iPS	N ₁ Z ₁		20	32	28	
			iSS	N ₁ E ₁ Z ₁		25	20	38	
			eSSS	N ₁ E ₁ Z ₁		28	55	27	
			eG	E ₁		32.0		38	
			eL	N ₁ Z ₁		33.6		36	
			M	E ₁		35.2		33	
			M	N ₁ Z ₁		51.5		18	
			eW ₂	E ₁	23	50.1		67	
	30	TAU	iP	ZV	06	55	05.0	½	2.5S, 102.4E
			eS	E ₁	07	02	43	24	
	30	TAU	iP	NEZ	14	04	11.8	1	55.9S, 27.5W
			isP	NEZ		04	26.9	1	
			e(S)	N ₁ E ₁ Z ₁		14	18	48	
			e	Z ₁		20	22	35	
			e	E ₁		25	16	31	
			eL	E ₁		28.5		48	
			eL	N ₁ Z ₁		30.8		54	
			M	N ₁		34.6		29	
			M	E ₁ Z ₁		40.5		19	
		MOO	iP	V	14	04	13.6	1	
			isP	V		04	29.7	½	
		TRR	i(P)	V	14	04	15.1	1	



PROVISIONAL BULLETIN JULY 1963

Instruments Operating : TAU: N, E, Z, N_1 , E_1 , Z_1 , V; MOO: V; TRR: V;
SAV: V (operating intermittently)

Note : 1. This bulletin contains only those earthquakes quoted by USCGS as having
magnitude $5\frac{1}{2}$ or greater.

2. Epicentre locations quoted are those given by USCGS.

3. Directions of ground motion are unknown.

Date 1963	Stn.	Phase	Comp.	Time (G.M.T.)			Per.	Remarks
				<i>h</i>	<i>m</i>	<i>s</i>	<i>s</i>	
July 24	SAV	iP	V	19	11	22.2	1	9.0S, 158.2E
	MOO	iP	V	19	11	32.2	1	
	TAU	eS	N_1	19	17	04	16	
		eL	$N_1 E_1 Z_1$		19.5		38	
29	TAU	iP	NEZ	20	20	23.4	1	30.2S, 177.3W
		i	NEZ		22	51.8	1	
		iPcP	Z		23	15.1	1	
		iS	$N_1 E_1 Z_1$		25	26	21	
		eL _Q	$N_1 E_1 Z_1$		27.4		25	
		eL _R	$N_1 E_1 Z_1$		28.9		24	
		M	N_1		37.0		13	
		M	$E_1 Z_1$		41.3		15	
	MOO	iP	V	20	20	24.3	1	H 20 14 04 $\Delta 31^\circ.3$, h 0.00
		i	V		22	54.2	1½	
		i	V		25	50.8	1	
		eL _R	V		32.4		19	
	TRR	iP	V	20	20	31.0	1	
		i	V		23	35.9	1	
		eL _R	V		32.5		17	

Seismograms read by Lesley Read.

Instruments Operating : TAU: N, E, Z, N₁, E₁, Z₁, Z¹, V; MOO: V; TRR: V; SAV: V
 Note : 1. This bulletin contains only those earthquakes quoted by USCGS as having
 magnitude 5½ or greater.

2. Epicentre locations quoted are those given by USCGS.

3. Directions of ground motion are unknown.



Date	1963	Stn.	Phase	Comp.	Time(G.M.T.)			Per.	Remarks
Aug.	3	TAU	i(PKP)	Z	h	m	s		
			ePS	N ₁	10	41	12.1	1¼	7.7N, 35.8W
			eSS	N ₁ E ₁		54	41	22	
			eSSS	E ₁	11	03	04	42	
			e	N ₁ E ₁		08	40	22	
			eG	N ₁ E ₁		12	21	42	
			M	N ₁		21.5		78	
			eW ₂	N ₁ E ₁		40.0		19	
			eW ₃	E ₁		52.5		84	
		MOO	iPKP	V	13	54.8		95	
					10	41	12.7	1	
	4	TAU	eSS	N ₁ E ₁	07	26	27	38	9.4S, 114.2E
			eL	N ₁ E ₁ Z ₁		29.8		36	
	8	TAU	eSKS	N ₁	02	39	05	23	54.2N, 168.1E
			eS	E ₁		40	01	25	
			ePS	N ₁ Z ₁		41	24	17	
			eSS	N ₁ E ₁ Z ₁		46	27	28	
			eSSS	E ₁		50	21	32	
			eG	E ₁		56.3		41	
			eL	N ₁ Z ₁	03	00.9		41	
			M	E ₁		04.5		24	
			M	N ₁ Z ₁		10.3		22	
	8	TAU	iP	NEZ	11	23	18.8	1	5.8S, 151.0E
			i	Z		23	54.3	1	
			i	NZ		24	09.3	1	
			e(S)	N ₁		28	53	25	
			eS	N ₁ E ₁ Z ₁		29	05	28	
			e(SS)	Z ₁		31	48	13	
			eL	N ₁ E ₁ Z ₁		32.2		38	
			M	E ₁		35.1		21	
			M	N ₁ Z ₁		36.5		23	
	9	TAU	iP	Z	14	44	38.5	½	15.3S, 175.7W
			eS	E ₁ Z ₁		50	51	16	
			eSS	E ₁ Z ₁		54	21	28	
			e	Z ₁		55	37	19	
			eL	E ₁ Z ₁		56.3		35	
		MOO	iP	V	14	44	39.2	1	
			i	V		45	18.4		
	14	MOO	iP	V	03	39	45.0	1	4.9S, 152.3E
		TAU	iP	NEZZ ¹	03	39	47.8	¾	
			i	Z ¹		40	17.9	¾	
			eS	N ₁ E ₁		45	37	27	
			eL	N ₁ E ₁ Z ₁		48.6		39	
			M	N ₁		51.9		34	
	14	TAU	iP	NEZZ ¹	18	51	34.2	1	3.4S, 135.4E
			iSP	ZZ ¹		51	50.6	1	
			e(S)	N ₁		58	07	26	
			eSS	N ₁ Z ₁	19	01	01	27	
			eL	N ₁ E ₁ Z ₁		04.2		30	
			M	N ₁ E ₁ Z ₁		09.8		14	
		MOO	i	V	18	51	44.3	1	
	15	TAU	eP	Z ₁	17	39	15	25	13.8S, 69.3W
			e	N ₁ E ₁ Z ₁		41	19	36	
			ePKP	NZ		42	47	¾	
			i	E		43	02.0	¾	
			i	NEZ		43	09.8	1	
			i(PP)	Z		43	58.9	¾	(continued)

continued)

		ePP	N ₁ E ₁ Z ₁	44	12	50	
		e(PKS)	N ₁ E ₁	45	59	40	
		e	Z ₁	46	11	50	
		iSKS	N ₁ E ₁	48	54	36	
		iSKKS	N ₁ E ₁ Z ₁	50	04	25	
		i	Z	51	11.1	1	
		iSP	N ₁ E ₁ Z ₁	52	42	28	
		iPKKP	NEZ	53	44.1	1	
		iSPP	N ₁ E ₁ Z ₁	53	52	14	
		i	Z ₁	55	46	28	
		isSP	N ₁ E ₁	56	22	29	
		i	Z ₁	57	35	28	
		iSS	N ₁ E ₁ Z ₁	59	16	48	
		iSKKS	E ₁	18	00	00	31
		i	E ₁ Z ₁	01	20	40	
		i	N ₁	02	44		
		iSSS	N ₁ E ₁ Z ₁	03	14	60	
		e	E ₁ Z ₁	05	46	50	
		e(L)	Z ₁	10	19	58	
		eL	N ₁ E ₁	12.4		76	
		iSSS	E ₁	31	30	47	
		eSSSS	N ₁ E ₁ Z ₁	37	56	55	
	MOO	ePKP	V	17	42	46	1
		iPP	V		43	04.9	¼
		iPKKP	V		53	43.6	1½
		iPKPPKP	V	18	02	13.8	1¼
22	TAU	eP	NEZZ ¹	19	59	12	½
		i	NZZ ¹		59	52.4	1
		ePP	N ₁ Z ₁	20	00	29	14
		iS	N ₁ E ₁ Z ₁		04	43	26
		eL	N ₁ E ₁ Z ₁		06.9		40
		M	N ₁ E ₁ Z ₁		15.0		10
	MOO	e	V	19	59	15	¼
25	MOO	iP	V	12	24	46.1	1½
		iScP	V		29	43.0	1½
	TAU	iP	NEZV	12	24	46.9	1
		iPP	N ₁ E ₁ Z ₁		26	33	10
		iScP	ZV		29	42.6	1¼
		iS	NN ₁ EE ₁		29	59.6	4,23
		isS	N ₁ Z ₁		33	02	28
		eSS	E ₁ Z ₁		33	20	28
		iScS	NN ₁ EE ₁		33	45	3,10
		M	E ₁ Z ₁		39.9		18
		ePKKP	N ₁ E ₁		48	38	30
		ePKKS	N ₁ E ₁		52	34	28
29	TAU	eSKS	E ₁	09	18	43	15
		ePS	N ₁ E ₁ Z ₁		21	32	35
		eSS	N ₁ E ₁ Z ₁		27	19	30
		e(L)	N ₁ E ₁		36	22	47
		eL	N ₁ E ₁ Z ₁		43.9		47
		M	N ₁ Z ₁		50.5		32
29	TAU	eP	Z ₁	15	45	20	21
		iPP	N ₁ E ₁ Z ₁		49	58	22
		ePPP	N ₁		52	28	12
		eSKS	N ₁ E ₁ Z ₁		55	58	35
		e	N ₁		57	39	12
		iPS	N ₁ E ₁ Z ₁		59	28	29
		iPPS	N ₁ E ₁ Z ₁	16	00	52	17
		iSS	N ₁ E ₁ Z ₁		06	00	23
		e	E ₁		13	34	38
		eG	N ₁ E ₁		17.1		41
		iL _R	N ₁ E ₁ Z ₁		23.0		34
		M	E ₁		38.5		17
		M	N ₁		41.5		15
		M	Z ₁		46.1		15
		eW ₂	N ₁ E ₁	17	12.9		118
		eW ₂	Z ₁		27.0		78

9.4S, 158.0E

17.5S, 178.8W

H 12 18 16.6
Δ 38.1, h 0.09

39.6N, 74.2E

7.1S, 81.6W

Instruments Operating : TAU : N,E,Z,N₁,E₁,Z₁, V; MOO: V; TRR: V.

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2. Epicentre locations quoted are those given by USCGS.

3. Directions of ground motion are unknown.

Date	1963	Stn.	Phase	Comp.	Time(G.M.T.)			Per.	Remarks
					<i>h</i>	<i>m</i>	<i>s</i>	<i>s</i>	
Sep.	4	MOO	iPKP	V	13	51	48.3	1	71.4N, 73.3W
		TAU	iPKP	ZZ ₁ V	13	51	48.3	1,10	
			i	NEZV		51	50.7	¾	
			eSS	E ₁	14	13	57	29	
			e	N ₁		15	42	30	
			eSSS	N ₁ E ₁		19	51	26	
			eL	N ₁ E ₁ Z ₁		34.0		49	
		TRR	ePKP	V	13	51	48½	1	
	15	MOO	iP	V	00	53	52.2	½,5	10.3S, 165.6E
			iPcP	V		56	26.0	1	
		TAU	iP	NEZV	00	53	55.2	½,5	
			i	Z		54	51.1	4	
			i	N ₁ E ₁ Z ₁		55	40	9	
			e	V		56	25	¾	
			iS	N ₁ Z ₁ V		59	33	33	
			iL	N ₁ Z ₁ V	01	02.3		31	
			M	ZV		12.6		9	
			e	N ₁ E ₁ Z ₁	04	03	40	154	
		TRR	iPcP	V	00	56	26.6	1	
	17	TAU	eSS	N ₁ E ₁ Z ₁	06	29	46	44	10.6S, 78.2W
			eL	N ₁ E ₁ Z ₁		47.6		25	

Date	Time	Phase	Comp.	Time (G.M.T.)			Per.	Remarks	
				h	m	s			
Sep. 17	17	MOO	iP	V	19	27	10.0	1	10.1S, 165.3E
			i	V		30	11.8	1½	
	TRR	iP	V	19	27	12.0	2		
		ipP	V		27	19.3	1½		
	TAU	e	V		30	16	1½	H 19 20 00 Δ 37.3, h 0.00 ca	
		iP	NEZV	19	27	12.8	1		
		ipP	NEZV		27	19.0	2		
		iPP	N ₁ E ₁ Z ₁		28	39	8		
		i	NEZV		30	12.3	1		
		iS	N ₁ E ₁ Z ₁		32	59	19		
		iL	N ₁ E ₁ Z ₁		35.9		37		
		iL	Z ₁		37.0				
		M	Z		44.3		12		
18	TAU	iPP	E ₁ Z ₁	17	20	18	17	40.9N, 29.2E	
		eSS	N ₁ E ₁ Z ₁		37	33	26		
		e	N ₁		53	28	36		
		eL	N ₁ E ₁ Z ₁		56.6		39		
		M	E ₁ Z ₁	18	08.8		23		
18	MOO	iP	V	17	25	25.7	1	3.3S, 139.9E	
	TAU	iP	ZV	17	25	29.5	¼		
22	TAU	iP	EZ	03	03	07.3	2	19.3S, 175.9E	
		ePP	N ₁ Z ₁		04	22	16		
		iS	N ₁ E ₁ Z ₁		08	38	13		
		eSS	N ₁ E ₁		10	43	17		
		eL	N ₁ E ₁ Z ₁		12.2		32		
		M	N ₁ E ₁ Z ₁		13.0		25		
24	TAU	eP	Z ₁	16	45	17	29	10.6S, 78.0W	
		ePP	N ₁ E ₁ Z ₁		49	29	35		
		ePPP	N ₁ E ₁		51	49	36		
		eSKS	N ₁ E ₁		55	27	23		
		e	Z ₁		57	53	33		
		ePS	N ₁ E ₁ Z ₁		59	08	36		
		ePPS	N ₁ E ₁ Z ₁	17	00	28	31		
		iSS	N ₁ E ₁ Z ₁		05	22	38		
		e	Z ₁		08	52	44		
		eSSS	N ₁		09	34	37		
		eG	N ₁ E ₁		17.2		61		
		eL	N ₁ E ₁ Z ₁		22.1		31		

Seismograms read by Lesley Read.