

Department of Scientific and Industrial Research

Geophysics Division

AFIA OBSERVATORY

FINAL SEISMOLOGICAL BULLETIN

STANDARD SEISMIC STATION (AFI)

AFIAMALU, WESTERN SAMOA

April 1984

International
Seismological
Centre

No	Date	Phase	(G.M.T.)	Az	Tz	An	Tn	Ae	Te	(Deg.)	Remarks
1	1	P S	ZNE ZNE	14	03 06	57 06				7.7	USGS: 18.11S, 178.50W Fiji Islands region h = 613 km H = 14 02 04.3 Mag. 4.9 (GS)
2	2	P	ZNE	05	03	00					
3	2	P S T	ZNE ZNE ZNE	06 06 07	51 53 02	37 35				11.6	USGS: 24.58S, 176.27W South of Fiji Islands h = 038 km H = 06 49 02.1 Mag. 5.4 MB 5.1 MSZ (GS)
4	3	P	ZNE	01	58	48					
5	3	P S SS SSS Lq Lr	ZNE ZNE ZNE ZNE ZNE ZE	03	03 14 20 23 27 32	08 00 20 44				91	USGS: 08.72N, 083.12W Costa Rica Felt h = 037 km D H = 02 50 01.1 Mag. Ms 7.2 (BRK), 6.5 MB 7.3 MSZ (GS)
6	4	P PP S SS SSS Lq Lr	ZNE ZNE ZNE ZNE Z NE ZNE	03	04 08 15 22 26 32 36	50 42 56 24 36				94	USGS: 05.72N, 094.72E Northern Sumatra h = 079 km H = 02 51 34.3 Mag. mb 6.8 (PAS), 6.6 (GS)
7	4	P	ZNE	03	19	24				16.2	USGS: 14.34S, 171.48E Vanuatu Islands region h = 033 km N H = 03 15 35.3 Mag. 5.6 (GS)
8	4	eP eLr	Z ZN	19	15 37	47				71	USGS: 52.93N, 159.86E Off East Coast of Kamchatka Felt h = 038 km D H = 19 04 20.6 Mag. 6.0 MB 5.6 MSZ (GS)
9	4	eP S (ScS) SS SSS Lq Lr	ZNE ZN E ZE ZE ZN ZN	23	23 32 33 37 40 41 44	53 52 36 14 20				68	USGS: 49.41N, 155.60E Kuril Islands Felt h = 051 km D H = 23 12 47.1 Mag. Ms 6.2 (BRK), 6.0 (PAS), 6.1 MB 6.5 MSZ (GS)
10	5	P S	ZNE ZNE	00	03 07	28 12				20.3	USGS: 15.04S, 167.29E Vanuatu Islands h = 123 km D H = 23 58 59.0 Mag. 6.2 (GS).

ID	Date	Phase	(G.H.T.)	As	Ts	An	Tn	As	To	(Deg.)	Remarks
11	5	P	ZHS 06 43 02								
		S	ZHS 27								
12	5	P	ZHS 13 50 57								
		(S)	ZHS 53 06								
13	5	P	ZHS 18 42 56								
		S	ZHS 44 36								
14	6	P	ZHS 18 10 27							10.6	USGS: 21.61S, 179.30W Fiji Islands region h = 625 km H = 18 08 07.1 Mag. 5.0 (GS)
		S	ZHS 12 30								
15	7	P	ZHS 15 40 46							9.3	USGS: 22.53S, 175.12W Tonga Islands region h = 033 km H H = 15 38 36.0 Mag. 5.5 MB 5.2 MSZ (GS)
		S	ZHS 42 16								
		oT	ZHS 49								
16	8	o	ZHS 03 02 00							132	USGS: 11.43N, 057.52E Arabian Sea h = 010 km G H = 02 28 25.5 Mag. Ms 6.3 (BKK), 6.2 (PAS), 5.9 MB 6.3 MSZ (GS)
		oSSP	ZHS 07 48								
		oSSS	ZHS 12 20								
		oLq	ZH 28								
		oLr	ZH 32								
17	9	P	ZHS 04 13 25								
		S	ZHS 14 57								
		oT	ZHS 22								
18	9	P	ZHS 04 45 11	2.1	0.9						
		S	ZHS 46 42								
19	9	P	ZHS 07 48 54								
		(S)	ZHS 50 36								
20	9	P	ZHS 12 13 05	5.5	1.0						
21	9	P	ZHS 23 30 02							10.3	USGS: 21.90S, 178.38W Fiji Islands region h = 426 km H = 23 27 49.1* Mag. 4.3 (GS)
		S	ZHS 31 52								
22	10	P	ZHS 02 21 40							4.9	USGS: 17.85S, 174.50W Tonga Islands h = 033 km H H = 02 20 39.9 Mag. Ms 5.5 (BKK) 5.8 MB, 5.4 MSZ (GS)
		S	ZHS 22 34								
23	10	P	ZHS 05 54 02							11.2	USGS: 22.15S, 179.59W South of Fiji Islands h = 595 km H = 05 51 36.3 Mag. 5.3 (GS)
		S	ZHS 55 59								
24	10	P	ZHS 06 49 32								
		S	ZHS 51								
25	10	P	ZHS 06 57 09								
		S	ZHS 28								
26	10	P	ZHS 07 00 46								
		S	ZHS 01 07								
27	11	oP	ZHS 00 16 36							10.6	USGS: 23.26S, 176.83W South of Fiji Islands h = 188 km H = 00 12 27.9? Mag. 4.1 (GS)

No	Date	Phase	(G.M.T.)	Az	Tz	An	Tn	Ac	Te	(Deg.)	Remarks
28	11	eP	ZNE 10 38 27							18.4	USGS: 30.52S, 179.10W Kermadec Islands region h = 354 km H = 10 35 25.07 Mag. 4.0 (GS)
29	11	P S	ZNE 17 08 41 ZNE 12 37							22.8	USGS: 35.55S, 179.25W East of North Island, N.Z. h = 050 km H = 17 03 41.7 Mag. 5.7 MB 5.2 MSZ (GS)
30	11	P S	ZNE 22 06 35 ZNE 08 08							8.1	USGS: 19.18S, 178.21W Fiji Islands region h = 583 km H = 22 04 33.1 Mag. 4.7 (GS)
31	11	iP S	ZNE 22 48 10 ZNE 30								d
32	12	P (s)	ZNE 05 27 01 ZNE 28 35							8.6	USGS: 20.49S, 177.17W Fiji Islands region h = 541 km H = 05 24 59.27 Mag. 4.6 (GS)
33	12	P S	ZNE 12 13 46 ZNE 15 18								
34	12	P pP PP (sPP) SkS S SS e SSS e e	ZNE 12 20 58 ZNE 21 28 Z 24 48 NE 25 20 ZNE 31 20 ZN 32 00 ZNE 38 00 ZNE 40 28 ZE 42 00 ZNE 48 00 ZE 50 28							91	USGS: 04.84S, 078.10W Peru-Ecuador Border region Felt h = 104 km H = 12 07 54.5 Mag. mb 6.7 (BRK), 6.6 (PAS) 6.5 (GS)
35	12	P S eT	ZNE 14 50 50 ZNE 52 24 ZNE 59							9.7	USGS: 23.04S, 174.99W Tonga Islands region h = 067 km H = 14 48 48.2* Mag. 4.8 (GS)
36	12	P S	ZNE 22 45 57 ZNE 48 30							14.6	USGS: 25.97S, 179.69E South of Fiji Islands h = 524 km H = 22 42 53.5* Mag. 5.4 (GS)
37	12	eP eS e eL	ZNE 22 52 00 ZNE 57 24 ZNE 59 40 ZNE 23 01							35.1	USGS: 05.16S, 153.63E New Ireland region Felt h = 062 km H = 22 44 50.5 Mag. Ms 5.8 (BRK), 5.4 (GS).
38	12	eP e(s)	ZNE 23 38 27 ZNE 40 02								
39	13	P S T	ZNE 04 23 23 ZNE 24 16 ZNE 28							5.4	USGS: 18.27S, 174.83W Tonga Islands h = 108 km H = 04 22 05.4? Mag. 5.2 (GS)

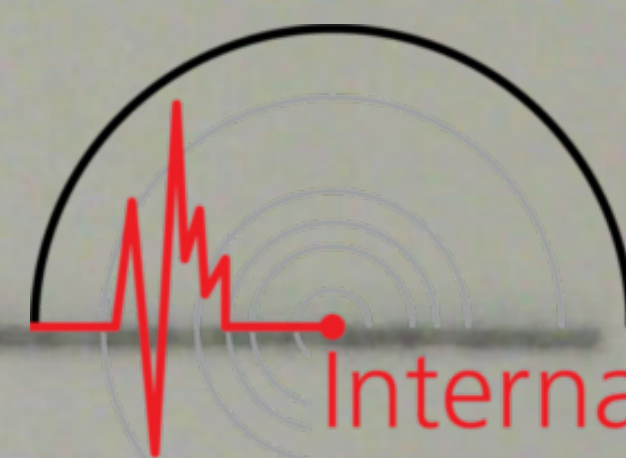
No	Date	Phase		(G.M.T.)			Az Tz An Tn Ae Te			(Deg.)	Remarks
40	13	e(P) oS eL	Z ZNE ZNE	14 45 54	44 36					23.3	USGS: 10.58S, 164.10E Santa Cruz Islands region h = 033 km N H = 14 44 09.5 Mag. 5.0 MB 5.0 MSZ (GS)
41	14	P S eT	ZNE ZNE ZNE	10 26 34	09 33					8.3	USGS: 21.42S, 175.40W Tonga Islands h = 033 km N H = 10 24 14.2* Mag. 5.2 MB 5.1 MSZ (GS)
42	15	P S	ZNE ZNE	00 10 11	56 40					6.5	USGS: 19.22S, 175.47W Tonga Islands h = 227 km H = 00 09 33.3 Mag. mb 5.9 (BRK), 5.7 (GS)
43	15	eP oS e(SS) eLr	ZNE Z ZNE ZE	04 50 56 58 05	39 08 32					33.6	USGS: 06.49S, 154.94E Solomon Islands h = 038 km H = 04 44 01.4 Mag. 5.8 MB 5.5 MSZ (GS)
44	15	(P)	ZNE	06	25	40					
45	15	P S	ZNE ZNE	11 14 15	24 18						
46	15	iP	ZNE	13	49	11	1.5	1.0		10.9	USGS: 19.53S, 178.45E South of Fiji Islands h = 033 km N H = 13 46 36.4 Mag. 4.5 (GS)
47	15	P e(s)	ZNE NE	17 25 28	10 28					17.5	USGS: 22.68S, 172.36E Loyalty Islands region h = 070 km H = 17 21 11.3 Mag. 5.0 (GS)
48	15	P S	ZNE ZNE	17 58 59	36 08						
49	15	P S T	ZNE ZNE ZNE	21 02 03 09	12 30					8.4	USGS: 21.86S, 174.15W Tonga Islands h = 033 km N H = 21 00 22.2* Mag. 5.2 (GS)
50	16	P	ZNE	08	39	53				6.5	USGS: 15.95S, 178.12W Fiji Islands region h = 441 km H = 08 38 13.7* Mag. 4.2 (GS)
51	16	P	ZNE	10	18	20					
52	16	P	ZE	13	09	33				76	USGS: 10.16S, 110.89E South of Java h = 057 km H = 12 57 49.9 Mag. Ms 5.4 (BRK) 5.9 (GS)
53	16	P S	ZNE ZNE	22 09	05 55						
54	17	P S	ZNE ZNE	14 11 15	22 00		8.7	1.1		19.5	USGS: 20.73S, 169.23E Vanuatu Islands h = 026 km H = 14 06 56.6 Mag. Ms 6.2 (BRK) 6.0 (PAS) 5.5 MB 6.2 MSZ (GS)

No	Date	Phase	(G.M.T.)	As	Tz	An	Tn	Ac	Te	(Deg.)	Remarks
55	17	(P)	Z	14	19	17					
56	17	P S	ZNE ZNE	15	54 56	50 27				3.61.0 8.7	USGS: 20.27S, 177.95W Fiji Islands region h = 483 km H = 15 52 45.7* Mag. 4.3 (GS)
57	17	iP S	ZNE ZNE	17	02	02 36				3.3	d USGS: 16.11S, 174.25W Tonga Islands h = 113 km H = 17 01 12.4* Mag. 4.3 (GS)
58	17	P	ZNE	17	49	43				2.5 1.0	
59	18	P S	ZNE ZNE	05	02 04	50 00				7.3	USGS: 19.95S, 175.74W Tonga Islands h = 229 km H = 05 01 17.6 Mag. 5.3 (GS)
60	18	(P)	ZNE	07	50	57					
61	18	ePKP ePP ePKKS eSS eSSS eLq eLr	ZNE ZNE ZNE NE ZNE ZNE ZE	11	17 19 30 37 42 54 12	55 59 48 24 28				129	USGS: 27.79N, 062.05E Southern Iran Felt h = 064 km H = 10 58 51.2 Mag. Ms 6.5 (BRK) 6.1 (PAS) 6.5 (GS)
62	18	P	ZNE	17	19	28				20.4	USGS: 13.67S, 167.25E Vanuatu Islands h = 218 km H = 17 15 04.4 Mag. 5.1 (GS)
63	19	(P)	ZNE	19	41	48					
64	20	P S	ZNE ZNE	08	34 35	40 15				3.5	USGS: 16.55S, 174.02W Tonga Islands h = 046 km H = 08 33 48.0* Mag. 4.4 (GS)
65	20	eP	ZNE	17	05	34				70	USGS: 07.89S, 117.58E Bali Sea h = 236 km H = 16 55 24.9* Mag. 4.5 (GS)
66	22	P	ZNE	05	52	55					
67	23	P S	ZNE ZNE	21	07 08	16 43				8.2	USGS: 21.18S, 175.54W Tonga Islands h = 051 km D H = 21 05 20.6* Mag. 4.7 (GS)
68	23	eS eL	NE ZNE	23	52 58	00				57	USGS: 53.07S, 117.84W Easterx Island Cordillera h = 010 km G H = 23 33 58.9 Mag. 5.0 MB 5.5 MSZ (GS)
69	24	eP oS	ZNE ZNE	03	05 06	07 12					

No	Date	Phase	(G.M.T.)	Az	Tz	An	Tn	Ae	Te	(Deg.)	Remarks
70	24	P S	ZNE ZNE	03	28 29	09 16				6.4	USGS: 16.23S, 177.02W Fiji Islands region h = 033 km N H = 03 26 40.1* Mag. 4.9 MB 5.6 MSZ (GS)
71	24	P S T	ZNE ZNE ZNE	03	31 33 41	44 34				10.9	USGS: 23.98S, 175.96W Tonga Islands region h = 029 km H = 03 29 17.5 Mag. Ms 5.5 (BRK), 5.4 (PAS) 5.9 MB 5.5 MSZ (GS)
72	24	P S	ZNE ZNE	06	36 37	46 56				5.7	USGS: 15.78S, 177.37W Fiji Islands region h = 033 km N H = 06 35 21.7* Mag. 4.8 (GS)
73	24	P S	ZNE ZNE	08	42	11 42				3.3	USGS: 16.00S, 174.28W Tonga Islands h = 033 km N H = 08 41 24.0* Mag. 4.5 (GS)
74	24	P eS	ZNE ZNE	09	15 20	09 12				30.3	USGS: 08.88S, 157.67E Solomon Islands h = 012 km H = 09 08 47.8 Mag. Ms 6.2 (PAS) 6.0 (BRK) 5.8 MB 6.1 MSZ (GS)
75	24	P S T	ZNE ZNE ZNE	15	57 58 16	53 57 03				6.1	USGS: 19.77S, 173.17W Tonga Islands h = 051 km D H = 15 56 33.3 Mag. 5.1 (GS)
76	24	P S	ZNE ZNE	18	28 31	44 27				18.6	USGS: 31.24S, 178.93W Kermadec Islands region h = 215 km H = 18 24 45.5* Mag. 4.6 (GS)
77	25	P	ZNE	01	01	33	2.0	1.0			
78	25	eP S eT	ZNE ZNE ZNE	01	35 37 43	43 00				7.2	USGS: 20.27S, 174.91W Tonga Islands h = 033 km N H = 01 34 00.9* Mag. 4.4 (GS)
79	25	P S	ZNE ZNE	09	52 54	43 11				7.7	USGS: 17.66S, 178.72W Fiji Islands region h = 569 km H = 09 50 49.5* Mag. 4.7 (GS)
80	25	e(P) e(S)	ZNE ZNE	10	31 33	52 11				8.9	USGS: 22.12S, 175.15W Tonga Islands region h = 033 km N H = 10 29 53.5* Mag. 4.4 (GS)



No	Date	Phase	(G.M.T.)	Az	Tz	An	Tn	Ae	Te	(Deg.)	Remarks
81	26	P eS	ZNE ZNE	11	20 24	01 25				19.4	USGS: 15.99S, 160.15E Vanuatu Islands h = 033 km N H = 11 15 37.4 Mag. 5.5 MB 5.3 MSZ (GS)
82	27	e eS e(SS)	ZNE ZNE Z	01	38 42 46	36 40 12				53	USGS: 62.68S, 155.63E Balleny Islands region h = 010 km G H = 01 25 31.3* Mag. 5.1 (GS)
83	27	eS e e(Lq) eLr	E ZE E ZN	01 02	55 56 02 04	48 36				53	USGS: 62.51S, 155.50E Balleny Islands region h = 010 km G H = 01 39 20.2 Mag. 5.4 MB 5.9 MSZ(GS)
84	27	P S T	ZNE ZNE ZNE	17	22 23 29	20 42				7.6	USGS: 21.14S, 174.27W Tonga Islands h = 021 km D H = 17 20 35.2 Mag. 5.5 MB 5.6 MSZ (GS)
85	27	P S	ZNE ZNE	21	07 08	59 19					
86	28	P S	ZNE ZNE	03	48 49	43 02					
87	28	P S eT	ZNE ZNE ZNE	21	40 44 58	56 02				18.1	USGS: 30.95S, 178.06W Kermadec Islands h = 033 km N H = 21 36 47.2 Mag. 5.6 MB 5.0 MSZ (GS)
88	29	P S	ZNE ZNE	00	07 09	22 02	1.5	0.9			
89	29	P S	ZNE ZNE	08	24 26	49 08				8.1	USGS: 20.65S, 176.23W Fiji Islands region h = 223 Km H = 08 23 01.4* Mag. 5.0 (GS)
90	29	eP (S)	ZNE ZNE	10	55 57	17 14					
91	29	P S	ZNE ZNE	12	11 13	00 09					
92	29	P (S)	ZNE ZNE	23	34 35	27 22					
93	30	P S T	ZNE ZNE ZNE	02 03	53 54 01	30 43				7.9	USGS: 21.35S, 174.25W Tonga Islands h = 023 km D H = 02 51 43.3 Mag. Ms 5.4 (PAS), 5.8 MB 5.6 MSZ (GS)
94	30	P S T	ZNE ZNE ZNE	07	33 34 38	35 29				5.5	USGS: 18.32S, 175.01W Tonga Islands h = 033 km N H = 07 32 08.8* Mag. 5.2 (GS)



No	Date	Phase	(G.M.T.)	Az	Tz	An	Tn	Ae	Te	(Deg.)	Remarks
95	30	eP	ZNE	14	14	50				68	USGS: 41.47N, 143.76E
		eS	ZNE		23	52					Hokkaido, Japan region
		eSS	ZN		28	08					Felt
		eSSS	ZNE		30	53					h = 030 km
		eLq	E		32						H = 14 03 49.2
		eLr	ZN		35						Mag. Ms 6.2 (PAS) 5.8 (BRK)
											6.5 MB 6.3 MSZ (GS)
96	30	eP	ZNE	22	39	03				5.4	USGS: 18.78S, 174.03W
		S	ZNE			58					Tonga Islands
											h = 033 km N
											H = 22 37 43.8
											Mag. 5.0 (GS)
