

APIA OBSERVATORY
 APIAMALU WSSS FINAL SEISMIC BULLETIN

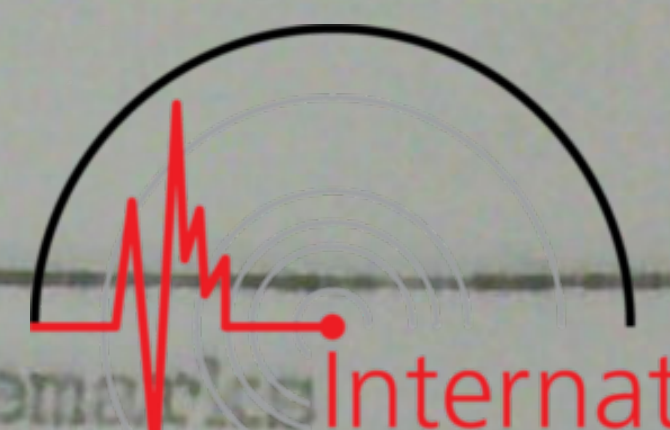
December 1984



No	Date	Phase	(G.M.T.)	Az	Tz	An	Th	Ae	Te	(Deg.)	Remarks
1	1	P S T	ZNE ZNE ZNE	06	41 42 46	25 21				6.1	USGS: 19.21S, 174.75W Tonga Islands h = 180 km G H = 06 40 15.1* Mag. 4.7 (GS)
2	2	P eS eSS eIr	ZNE NE E NE	06	20 29 32 36	24 16 56				60.4	USGS: 20.36N, 115.77W East Central Pacific Oc. h = 010 km G H = 06 09 44.0 Mag. 6.0 MB 6.2 MSZ (GS)
3	2	P S	ZNE ZNE	09	07 08	14 12					
4	2	P S	ZNE ZNE	13	57 59	53 21					
5	2	P eS	ZNE NE	16	11 15	59 48				20.3	USGS: 33.26S, 178.14W South of Kermadec Is. h = 033 km H H = 16 07 28.4* Mag. 5.0 MB 4.9 MSZ(GS)
6	2	P ePPP eS eSSS eIr	ZNE NE NE N NE	21	16 18 22 25 26	41 24 20 12				37.2	USGS: 03.82S, 152.04E New Ireland region h = 018 km H = 21 09 25.9 Mag. 5.4 MB 6.0 MSZ(GS)
7	3	P e(PcP) ePPP eS eSSS eSS eLq eIr	ZNE NE N NE E E NE NE	04	19 21 24 28 29 33 36 38	32 00 36 32 16 12				60.7	USGS: 44.21N, 148.14E Kuril Islands Felt h = 065 km D H = 04 08 35.1 Mag. 6.4 (GS)
8	3	P S	ZNE NE	16	31 32	17 12				6.0	USGS: 15.61S, 177.48W Fiji Islands region h = 090 km H = 16 30 05.3* Mag. 4.8 (GS)
9	4	P S	ZNE ZNE	04	29 31	06 29				12.7	USGS: 24.06S, 179.68E South of Fiji Islands h = 482 km H = 04 28 48.5* Mag. 5.0 (GS)
10	4	P	Z	07	53	01				50.8	USGS: 22.61N, 143.33E Volcano Islands region h = 122 km D H = 07 43 23.1 Mag. 5.8 (GS)
11	4	P S	ZNE ZNE	16	37 39	25 07				10.4	USGS: 23.67S, 176.39W South of Fiji Islands h = 071 km D H = 16 35 04.4 Mag. 4.8 (GS)
12	4	P S	ZNE ZNE	22	19 20	05 53				10.0	USGS: 21.08S, 179.09W Fiji Islands region h = 634 km D H = 22 16 52.5 Mag. 4.8 (GS)

No	Date	Phase	(G.M.T.)	Az	Tz	An	Tn	Ae	To	(Deg.)	Remarks
13	4	P	ZNE	23	26	41					
		S	ZNE		28	13					
14	5	P	ZNE	10	25	19					
		S	ZNE		26	36					
		T	ZNE		32						
15	5	P	ZNE	11	56	16					
		S	ZNE		57	23					
16	5	P	ZNE	12	02	19					
		S	ZNE		04	21					
17	5	P	ZNE	13	08	45					
		S	ZNE		10	03					
18	5	P	ZNE	20	27	15					
		S	ZNE		28	23					
		T	ZNE		33						
19	6	P	ZNE	08	44	46					
		S	ZNE		45	27					
20	7	P	ZN	10	00	20	1.8	1.0			
		S	ZN		01	56					
21	7	PKP	Z	10	39	17					
22	7	P	ZNE	16	55	14					
		S	ZNE		56	58					
23	8	P	NE	21	18	17					
24	9	P	ZNE	19	46	03					
		S	ZNE			21					
25	10	P	N	18	10	22					
		S	N			50					
		T	N		13						
26	10	P	N	18	54	37					
		S	N		56	04					
27	10	P	ZNE	21	38	44					
28	11	P	ZNE	04	44	23					
		S	ZNE		45	04					

No	Date	Phase	(G.M.T.)	Az	Tz	An	Tn	As	Te	(Deg.)	Remarks
29	11	P S	ZNE ZNE	08	28 29	31 50				7.8	USGS: 19.51S, 171.05W Fiji Islands region h = 371 km H = 08 26 51.4? Mag. 4.8 (GS)
30	11	P (S)	ZNE ZNE	17	39 42	56 39					
31	11	P	ZNE	22	57	57				60	USGS: 26.50N, 143.71E Bonin Islands region h = 017 km D H = 22 47 56.2 Mag. 5.3 MB 4.7 MSZ (GS)
32	11	eP ePP e e(S) eSS eLq eLr	Z ZE ZE Z E E ZE	23	35 39 46 48 54 00 07	40 36 08 04 20				98	USGS: 22.41S, 068.60W Northern Chile Felt h = 092 km H = 23 22 19.3 Mag. 5.7 (GS)
33	12	P S	ZNE ZNE	06	15 17	46 22				9.3	USGS: 19.89S, 178.63W Fiji Islands region h = 627 km H = 06 13 49.9? Mag. 4.1 (GS)
34	12	P S	ZNE ZNE	20	22 20	26 30					
35	12	P	ZNE	23	18	24				78	USGS: 07.88S, 108.02E Java h = 077 km D H = 23 06 27.7 Mag. 5.6 (GS)
36	13	P S	ZNE ZNE	12	19 20	06 02				6.0	USGS: 19.16S, 174.83W Tonga Islands h = 138 km D H = 12 17 43.4 Mag. 5.1 (GS)
37	13	P	ZNE	20	29	15				84	USGS: 04.95S, 101.80E Southern Sumatera h = 028 km D H = 20 16 35.9 Mag. 5.2 MB 5.0 MSZ (GS)
38	14	P S	ZNE ZNE	00	19 20	22 58				10.0	USGS: 20.92S, 177.95W Fiji Islands region h = 464 km H = 00 17 20.4 Mag. 5.0 (GS)
39	14	P S	ZNE ZNE	02	13 15	43 13				8.0	USGS: 17.68S, 178.73W Fiji Islands region h = 608 km H = 02 11 49.7* Mag. 4.1 (GS)
40	14	P S	ZNE ZNE	02	21 22	29 22				4.7	USGS: 15.82S, 175.59W Tonga Islands h = 351 km H = 02 20 21.3 Mag. 4.8 (GS)
41	14	P S	ZNE ZNE	06	14 15	02 52				11.8	USGS: 24.86S, 175.86W South of Tonga Islands h = 033 km N H = 06 11 27.4? Mag. 4.8 (GS)



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No	Date	Phase	(G.M.T.)		Az	Tz	An	Th	Ae	Te (Deg.)	Remarks
42	15	iP S T	ZNE ZNE ZNE	17	38 39 45	56 16				2.3	USGS: 15.01S, 173.59W Tonga Islands h = 033 km N H = 17 38 31.7? Mag. 4.9 (GS)
43	15	P S	ZNE ZNE	19	09 11	25 32				12.0	USGS: 23.29S, 179.60W South of Fiji Islands h = 543 km H = 19 06 47.9* Mag. 4.0 (GS)
44	16	P S	ZNE ZNE	04	22 23	44 43					
45	16	(P)	ZNE	19	59	10				36.0	USGS: 04.67S, 153.14E New Ireland region Felt h = 050 km H = 19 51 53.2 Mag. 5.5 MB 5.4 MSZ (GS)
46	16	P S	ZNE ZNE	22	35 37	29 08	4.5	1.2		7.0	USGS: 15.41S, 179.09W Fiji Islands region h = 033 km N H = 22 33 46.1* Mag. 4.7 (GS)
47	17	P S	ZNE ZNE	16	10 12	21 33				14.3	USGS: 25.70S, 179.47E South of Fiji Islands h = 548 km H = 16 07 17.7* Mag. 4.7 (GS)
48	17	eP S	ZNE ZNE	23	27 28	36 32					
49	17	P eS eIq eLr	ZNE ZNE ZE ZNE	23 00	41 50 58 00	25 28				68	USGS: 44.42N, 149.18E Kuril Islands Felt h = 029 km H = 23 30 21.2 Mag. 5.7 MB 6.0 MSZ (GS)
50	18	P	ZN	06	25	25				21.2	USGS: 34.09S, 178.76W South of Kermadec Islands h = 033 km N H = 06 20 42.2? Mag. 4.6 (GS)
51	18	P	Z	17	07	50					
52	18	eP	ZNE	19	46	15				66	USGS: 37.156N, 141.483E Near East Coast of Honshu, Japan Felt h = 044 km D H = 19 35 27.0 Mag. 5.5 MB 5.5 MSZ (GS)
53	19	P S T	ZNE ZNE ZNE	05	23 24 31	11 30					
54	19	P eS	ZNE ZNE	05	43 47	57 44				20.0	USGS: 32.96S, 178.04W South of Kermadec Islands h = 033 km N H = 05 39 30.9 Mag. 5.3 (GS)
55	19	P S	ZE ZNE	07	55 58	12 08				16.0	USGS: 17.04S, 172.47E Vanuatu Islands region h = 034 km H = 07 51 35.3 Mag. 5.4 MB 5.1 MSZ (GS)

No	Date	Phase	(G.M.T.)	Az	Tz	An	Tn	As	Te	(Deg.)	Remarks
56	19	P	ZN	10	29	36			20.0		USGS: 32.979S, 178.486E South of Kermadec Islands h = 033 km N H = 10 25 02.1* Mag. 4.8 (GS)
57	20	eS e eSS eSSS eLr	NE E NE N ZNE	16 51 58 17 06	49 36 16 02 06	36			88		USGS: 11.40N, 086.23W Near Coast of Nicaragua Felt h = 063 km H = 16 26 14.3 Mag. 5.4 (GS)
58	21	P eS eSS eLr	ZNE ZNE ZNE ZE	18 19 04 06	55 01 04 06	11 04 04	5.5	1.2	38.8		USGS: 06.105S, 149.86E New Britain Region h = 044 km H = 18 47 51.0 Mag. 5.6 MB 6.1 MSZ (GS)
59	21	P	ZNE	19	09	19			38.2		USGS: 06.155S, 149.876E New Britain Region h = 033 km N H = 19 01 57.9 Mag. 5.3 MB 5.3 MSZ (GS)
60	23	P S	ZNE ZNE	02 31	29 15	36	3.2	1.0	9.3		USGS: 20.556S, 178.426W Fiji Islands region h = 557 km H = 02 27 31.9* Mag. 4.2 (GS)
61	24	P	ZNE	05	39	45			38.8		USGS: 5.990S, 149.606E New Britain Region h = 071 km H = 05 32-35.1 Mag. 5.6 MB (GS)
62	27	P S	ZNE ZNE	03 30	28 27	36			10.7		USGS: 21.893S, 179.350W Fiji Islands region h = 604 km H = 03 26 06.4* Mag. 5.3 MB (GS)
63	28	P ePP eS eSS eSSS eLq eLr	ZNE N ZNE ZNE E ZN ZN	10 51 58 11 06 08 11	49 52 48 03 20 05	23			73		USGS: 56.194N, 163.460E Near East Coast of Kamchat h = 033 km N H = 10 37 53.7 Mag. Ms 6.7 (BRK) 6.4 (PAS) 6.2 MB 7.0 MSZ (GS)
64	28	P	ZNE	11	22	15			24.4		USGS: 36.458S, 177.941E Off East Coast of N. Island New Zealand h = 033 km N H = 11 16 57.9* Mag. 4.9 MB (GS)
65	28	P	ZNE	13	10	57			24.4		USGS: 36.660S, 177.777E Off East Coast of N. Island New Zealand h = 033 km N H = 13 05 36.5* Mag. 5.2 (GS)
66	28	P eS	ZNE E	14 07	03 56	34			24.3		USGS: 36.609S, 177.803E Off East Coast of N. Island New Zealand h = 033 km N H = 13 58 14.7* Mag. 5.5 MB (GS)



No	Date	Phase	(G.M.T.)	Az	Tz	An	Tn	Ae	Te	(Deg.)	Remarks
67	28	P S	ZNE ZNE	16	02 04	32 41				13.0	USGS: 23.542S, 179.150E South of Fiji Islands h = 553 km H = 15 59 48.5 Mag. 5.3 (GS)
68	28	P eS	ZNE ZNE	18	25 30	35 00				24.5	USGS: 36.638S, 177.772E Off East Coast of North Island, New Zealand h = 027 km H = 18 20 16.1 Mag. Ms 5.4 (BRK) 5.5 MB ! 5.3 MSZ (GS)
69	28	P S	ZNE ZNE	20	27 28	30 31					
70	29	P	Z	01	18	40				74	USGS: 24.795N, 122.040E Taiwan Region Felt h = 086 km H = 01 07 01.3 Mag. 5.4 MB (GS)
71	30	(P)	ZNE	02	51	30					
72	30	eS eL	NE ZNE	15	16 18	40				24.4	USGS: 36.622S, 177.893E Off East Coast of North Island New Zealand h = 024 km H = 15 06 45.2* Mag. 5.1 MB 5.2 MSZ (GS)
73	30	P	ZNE	20	31	44				24.9	USGS: 36.680S, 177.701E Off East Coast of North Island, New Zealand h = 043 km H = 20 26 24.6 Mag. 5.2 MB 5.1 MSZ (GS)
74	30	P	ZNE	21	33	10				24.6	USGS: 36.696S, 177.536E Off East Coast of North Island, New Zealand h = 044 km H = 21 28 39.0* Mag. 5.2 (GS)
75	30	P S	ZNE ZNE	21	42 47	15 00				24.5	USGS: 36.663S, 177.512E Off East Coast of North Island, New Zealand Felt at Auckland and Western Bay of Plenty h = 039 km H = 21 36 56.4 Mag. 6.2 MB 6.8 MSZ 6.8 (BRK) 6.6 (PAS)
76	31	P S T	ZNE ZNE ZNE	10	09 10 15	40 42				6.2	USGS: 19.550S, 173.837W Tonga Islands h = 033 km N H = 10 08 19.5 Mag. Ms 5.4 (BRK) 5.4 MB 5.5 MSZ (GS)
77	31	eS eL eL	ZNE NE ZNE	21 22	59 05 07	08				53	USGS: 60.135S, 153.192E West of Macquarie Island h = 010 km G H = 21 42 10.5 Mag. 5.4 MB 5.2 MSZ (GS)