

MANILA OBSERVATORY
Mirador, Baguio City
Philippines

Lorin P.H.

MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. 16° 24' 39"

Long. E. 120° 34' 47"

Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u> <u>Synchronous</u>
		<u>Seism.</u>	<u>Galv.</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa 3567
	E-W	10.90 "	11.70 "	2000
	N-S	1.84 "	1.67 "	2451
Photoelectric	N-S	11.80 "	12.00 "	1000
	Visual Recording	E-W	1.54 "	3000

JANUARY 1958

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
1)	1	01 - 07 - 20	ePb } iSb }	Very small. $\Delta b = 190$ Km.
		42		
2)		03 - 45 - 18	iPb } eSb }	Very small. $\Delta b = 155$ Km.
		36		
3)		04 - 53 - 20	iPb } eSb }	Very small. $\Delta b = 190$ Km.
		42		
4)		09 - 08 - 06	iPb } iSb }	Very small. $\Delta b = 255$ Km.
		35		
5)		09 - 37 - 28	ePg } iSg }	Very small. $\Delta g = 35$ Km.
		32		
6)		10 - 28 - 12	ePb } iSb }	Very small. $\Delta b = 210$ Km.
		36		
7)		19 - 16 - 36	ePb } iSb }	Very small. $\Delta b = 220$ Km.
		17 - 01		
8)		22 - 48 - 16	iPb } iSb }	Very small. $\Delta b = 165$ Km.
		35		
9)	2	00 - 28 - 45	eP	Very small.
10)		00 - 55 - 22	ePb } eSb }	Very small. $\Delta b = 210$ Km.
		48		
11)		01 - 05 - 07	eP	Very small.
12)		07 - 52 - 44	ePg } iSg }	Very small. $\Delta g = 100$ Km.
		56		
13)		09 - 48 - 10	ePb } eSb }	Very small. $\Delta b = 318$ Km.
		46		
14)	3	02 - 00 - 24	ePg } iSg }	Very small. $\Delta g = 100$ Km.
		56		
15)		17 - 58 - 14	iP	Very small.

January 1958...

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
16)	4 ✓	09 - 51 - 59	iPg } iSg }	Very small. $\Delta g = 58$ Km.
		52 - 06		
17)	✓	10 - 15 - 04	ePb } iSh }	Very small. $\Delta b = 235$ Km.
		31		
18)	✓	11 - 18 - 44	ePb } iSb }	Very small. $\Delta b = 220$ Km.
		19 - 09		
19)	✓	13 - 10 - 50	eP	Very small.
20)	✓	15 - 18 - 13	iPg } eSg }	Very small. $\Delta g = 110$ Km.
		26		
21)	5	08 - 38 - 18	eP } iS }	Distant. $\Delta = 1380$ Km. = 12.4° .
		40 - 46		
22)	✓	11 - 38 - 20	eP } eS }	Distant. $\Delta = 5620$ Km. = 50.6° .
		45 - 46		
25)	6	11 - 29 - 36	eP	Distant.
24)	✓	12 - 28 - 55	ePb } iSb }	Very small. $\Delta b = 220$ Km.
		29 - 20		
25)	✓ 7	12 - 44 - 54	ePg } iSg }	Very small. $\Delta g = 68$ Km.
		45 - 02		
	8	No quakes.		
26)	9	08 - 20 - 48	iPb } iSb }	Very small. $\Delta b = 220$ Km.
		21 - 13		
27)	✓	12 - 31 - 31	eP	Very small.
28)	✓	17 - 47 - 14	eP	Distant.
29)	✓	19 - 26 - 43	ePb } iSb }	Very small. $\Delta b = 175$ Km.
		27 - 20		
30)		21 - 43 - 00	eP	Very small.
31)	10 ✓	07 - 11 - 48	iPg } iSg }	Very small. $\Delta g = 100$ Km.
		12 - 00		
32)	11 ✓	04 - 06 - 04	ePb } iSb }	Very small. $\Delta b = 148$ Km.
		21		
33)	✓	13 - 30 - 17	iP } iS }	Distant. $\Delta = 7565$ Km. = 68.1° .
		39 - 22		
	12	No quakes.		
34)	13 ✓	00 - 11 - 56	iP	Very small.
35)	✓	03 - 03 - 46	iP	Distant. $\Delta = 6055$ Km. = 54.5° .
		11 - 30	iS	
36)	✓	19 - 51 - 20	eP	Very small.
37)	✓	20 - 20 - 20	eP } iS }	Distant. $\Delta = 2845$ Km. = 25.6° .
		24 - 52		
38)	14 ✓	07 - 31 - 26	iP	Very small.
39)		08 - 47 - 58	eP	Very small.

January 1958 ...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
40)	15	19 - 34 - 29	eP	Distant. Southern Peru. Distant. $\Delta = 6010$ Km. 54.1° .
41)		22 - 25 - 16	iP	
		32 - 57	iS	
42)	16	11 - 13 - 05	iP	Very small. No record in Baguio of Cebu quake. Newspapers reported Int. V.
43)	17	04 - 18 - 26	eP	Distant. $\Delta = 1980$ Km. = 17.9° .
		21 - 50	iS	
44)		07 - 38 - 00	P	Teleseismic.
45)		18 - 35 - 24	eP	Very small.
46)	18	14 - 20 - 50	ePb	Very small. $\Delta b = 220$ Km.
		21 - 15	iSb	
47)	19	09 - 13 - 06	ePb	Very small. $\Delta b = 840$ Km. = 7.6° .
		14 - 40	eSb	
48)		14 - 27 - 24	iP	Distant. Near coast of Ecuador.
49)	20	06 - 29 - 10	ePb	Very small. $\Delta b = 143$ Km.
		37	eSb	
50)		04 - 47 - 12	ePb	Very small. $\Delta b = 235$ Km.
		42	iSb	
51)		07 - 15 - 32	iPb	Moderate. $\Delta b = 190$ Km. Not felt in Baguio. Operated starting pendulum of strong motion seismograph but no record made. Manila Int. IV and V. Ambulong Int III, Batangas Int. III, Calapan Int. II.
		54	eSb	
52)	21	01 - 52 - 58	ePg	Very small. $\Delta g = 85$ Km.
		55 - 08	iSg	
53)		02 - 03 - 02	eP	Very small.
54)	22	09 - 12 - 22	ePb	Very small. $\Delta b = 200$ Km.
		45	eSb	
55)		37 - 40	ePg	Very small. $\Delta g = 85$ Km.
		50	iSg	
56)		18 - 30 - 45	ePb	Very small. $\Delta b = 695$ Km. = 3.2° .
		32 - 03	iSb	
57)	23	02 - 40 - 51	iP	Very small.
58)		15 - 32 - 04	ePb	Very small. $\Delta b = 155$ Km.
		22	iSb	
59)	24	05 - 19 - 53	iPb	Very small. $\Delta b = 210$ Km.
		20 - 17	iSb	
60)		06 - 03 - 02	iP	Distant.

January 1958...

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
61)	24	11 - 40 - 16	ePg	Very small. $\Delta_g = 85$ Km.
		26	iSg	
62)	24	20 - 50 - 25	iPb	Very small. $\Delta_b = 130$ Km.
		40	iSb	
63)	25	21 - 15 - 26	iPb	Very small. $\Delta_b = 190$ Km.
		48	iSb	
64)	26	08 - 45 - 50	ePg	Very small. $\Delta_b = 140$ Km.
		46 - 06	iSb	
65)	26	10 - 03 - 06	ePb	Very small. $\Delta_b = 175$ Km.
		26	iSb	
66)	26	20 - 37 - 39	ePb	Very small. $\Delta_b = 190$ Km.
		38 - 01	iSb	
67)	27	07 - 55 - 26	iP	Distant. $\Delta = 8045$ Km. = 72.4° .
		08 - 04 - 54	iS	
68)	27	09 - 00 - 25	eP	Distant. $\Delta = 4680$ Km. = 42.1° .
		06 - 52	iS	
69)	27	13 - 33 - 24	ePb	Very small. $\Delta_b = 550$ Km. = 4.9° .
		34 - 26	eSb	
70)	28	05 - 17 - 10	ePg	Very small. $\Delta_g = 68$ Km.
		18	iSg	
71)	28	19 - 45 - 54	iP	Distant. $\Delta = 2200$ Km. = 19.8° .
		49 - 56	iS	
72)	29	10 - 57 - 17	iPb	Very small. $\Delta_b = 190$ Km.
		39	iSb	
73)	29	10 - 41 - 56	iPb	Very small. $\Delta_b = 165$ Km.
		42 - 15	iSb	
74)	29	14 - 06 - 11	ePb	Very small. $\Delta_b = 500$ Km.
		45	iSb	
75)	30	06 - 19 - 18	iP	Distant. $\Delta = 4565$ Km. = 41.1° .
		25 - 39	iS	
76)	30	07 - 26 - 29	iPg	Very small. $\Delta_g = 68$ Km.
		37	iSg	
77)	31	01 - 11 - 21	iPb	Very small. $\Delta_b = 175$ Km.
		41	eSb	
78)	31	10 - 42 - 17	ePb	Very small. $\Delta_b = 310$ Km.
		52	iSb	
79)	31	14 - 40 - 35	iPb	Very small. $\Delta_b = 470$ Km.
		41 - 28	iSb	

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MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. 16° 24' 39" Long. E. 120° 54' 47" Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u> <u>Synchronous</u>
		<u>Seism.</u>	<u>Galv.</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa 3557
	E-W	10.90 "	11.70 "	2000
	N-S	1.84 "	1.67 "	2451
Photoelectric	N-S	11.80 "	12.00 "	1000
	E-W	1.54 "	1.49 "	5000

FEBRUARY 1958

<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 80)	1 01 - 01 - 47	eP	Very small.
- 81)	07 - 05 - 56	ePb	Very small. $\Delta b = 140$ Km.
	03 - 12	eSb	
- 82)	✓ 16 - 30 - 05	eP	Distant.
- 83)	19 - 53 - 04	eP	Distant. $\Delta = 1565$ Km. = 14.1° .
	35 - 50	iS	
- 84)	X 21 - 05 - 42	ePb	Very small. $\Delta b = 175$ Km.
	03 - 02	iSb	
- 85)	22 - 08 - 09	iP	Very small.
- 86)	23 - 56 - 06	ePg	Very small. $\Delta g = 85$ Km.
	16	iSg	
- 87)	2 02 - 04 - 30	iP	Distant. $\Delta = 2190$ Km. = 19.6° .
	08 - 11	iS	
- 88)	✓ 08 - 19 - 48	iP	Distant. $\Delta = 4555$ Km. = 41.0° .
	26 - 03	iS	
- 89)	3 10 - 17 - 41	ePg	Very small. $\Delta g = 95$ Km.
	52	iSg	
- 90)	18 - 41 - 30	ePg	Very small. $\Delta g = 50$ Km.
	56	iSg	
- 91)	4 02 - 21 - 26	iP	Distant. $\Delta = 2645$ Km. = 25.8° .
	25 - 44	iS	
- 92)	06 - 45 - 45	iP	Very small.
- 93)	21 - 25 - 24	eP	Very small.
5	No quakes recorded.		

February 1953...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-94)	6	01 - 44 - 15	ePb	Very small. $\Delta b = 800 \text{ Km.} = 7.2^\circ$.
		45 - 43	iSb	
-95)		11 - 35 - 38	ePb	Very small. $\Delta b = 165 \text{ Km.}$
		57	iSb	
-96)		15 - 55 - 55	eP	Very small.
-97)		16 - 11 - 25	iP	Very small.
-98)	7	07 - 05 - 22	eP	Distant.
-99)		08 - 52 - 16	ePb	Very small. $\Delta b = 415 \text{ Km.}$
		55 - 05	iSb	
-100)		11 - 23 - 57	ePb	Very small. $\Delta b = 255 \text{ Km.}$
		29 - 26	iSb	
-101)		15 - 45 - 53	iPg	Very small. $\Delta g = 50 \text{ Km.}$
		59	iSg	
-102)		25 - 28 - 26	iP	Distant. $\Delta = 2400 \text{ Km.} = 21.6^\circ$.
		52 - 28	iS	
-103)	8	02 - 03 - 26	eP	Distant. $\Delta b = 925 \text{ Km.} = 8.3^\circ$.
		05 - 10	iS	
-104)		25 - 47 - 14	ePg	Very small. $\Delta g = 85 \text{ Km.}$
		24	eSg	
-105)	9	22 - 50 - 25	iPb	Small. $\Delta b = 460 \text{ Km.}$
		51 - 17	iSb	
-106)	10	14 - 45 - 29	ePb	Very small. $\Delta b = 290 \text{ Km.}$
		46 - 02	iSb	
-107)		15 - 54 - 20	ePb	Very small. $\Delta b = 285 \text{ Km.}$
		52	iSb	
-108)	11	01 - 00 - 00	eP	Teleseismic.
-109)		08 - 57 - 57	eP	Distant.
-110)		11 - 33 - 45	iPb	Small. Operated starting pendulum only of strong motion seismograph. No record made. Felt at Iba, Tambales Province, Int. III.
		59 - 02	iSb	
-111)		20 - 04 - 15	eP	Distant.
-112)		25 - 27 - 57	eP	Distant.
-113)	12	03 - 15 - 03	ePb	Very small. $\Delta b = 155 \text{ Km.}$
		21	eSb	
-114)	13	03 - 41 - 30	eP	Very small.
-115)		17 - 07 - 20	ePb	Distant. $\Delta b = 910 \text{ Km.} = 8.2^\circ$.
		09 - 02	iSb	
-116)	14	09 - 03 - 25	iPb	Very small. $\Delta b = 265 \text{ Km.}$
		55	iSb	
-117)		09 - 58 - 00	ePb	Very small. $\Delta b = 175 \text{ Km.}$
		20	iSb	

February 1958...

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-118)	14	16 - 15 - 34	ePb	Very small. $\Delta b = 155$ Km.
		52	iSb	
-119)		17 - 58 - 19	iPb	Very small. $\Delta b = 155$ Km. Felt at Iba, Zambales Province, Int. III.
		57	eSb	
-120)	15	01 - 53 - 45	iP	Distant. $\Delta = 5720$ Km. = 53.5° .
		59 - 13	iS	
-121)		04 - 45 - 32	ePb	Distant. $\Delta b = 955$ Km. = 8.6° .
		45 - 19	iSb	
-122)	16	05 - 10 - 05	eP	Distant. $\Delta = 5080$ Km. = 27.7° .
		14 - 54	iS	
-123)		11 - 01 - 32	iPb	Very small. $\Delta b = 155$ Km.
		50	iSb	
-124)		11 - 26 - 00	ePb	Very small. $\Delta b = 155$ Km.
		18	iSb	
-125)		14 - 26 - 49	ePb	Very small. $\Delta b = 140$ Km.
		27 - 05	eSb	
-126)	17	00 - 02 - 31	eP	Very small.
-127)		05 - 27 - 05	iP	
		55 - 49	iS	Distant. $\Delta = 5000$ Km. = 45.0° .
-128)		05 - 42 - 09	ePb	
		26	iSb	Very small. $\Delta b = 148$ Km.
-129)		06 - 45 - 25	ePg	
		27	iSg	Very small. $\Delta g = 35$ Km.
-130)		19 - 07 - 21	iPb	
		47	iSb	Very small. $\Delta b = 230$ Km.
-131)		21 - 54 - 51	ePb	
		49	iSb	Very small. $\Delta b = 155$ Km.
-132)		22 - 48 - 55	ePb	
		49 - 12	iSb	Very small. $\Delta b = 140$ Km.
-133)	18	10 - 39 - 07	ePb	
		40 - 03	iSb	Very small. $\Delta b = 495$ Km.
-134)		11 - 29 - 05	eP	
-135)		15 - 55 - 07	iP	Very small.
-136)		18 - 55 - 48	iP	
-137)		19 - 09 - 13	iP	Distant. S uncertain.
-138)		19 - 55 - 57	iP	
-139)		19 - 49 - 50	eP	Distant. S uncertain.
		50 - 39	iPb	
			iSb	Very small.
-140)	19	06 - 10 - 09	eP	
-141)		09 - 34 - 26	ePb	Very small. $\Delta b = 562$ Km.
		35 - 07	iSb	
-142)		15 - 21 - 48	iPb	Very small. $\Delta b = 235$ Km.
		22 - 13	iSb	
-143)		14 - 50 - 58	iPg	Small. $\Delta g = 75$ Km. Felt in Baguio, Int. I and II. Operated only starting pendulum of strong motion seismograph. No record made.
		51 - 07	iSg	

February 1968...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-144)	19	18 - 52 - 56	eP } iS }	Distant. $\Delta = 1445 \text{ Km.} = 15.0^\circ$.
-145)		55 - 51		
-146)	19	51 - 11	iP } ePb } eSb }	Distant. Very small. $\Delta b = 555 \text{ Km.}$
-147)	20	05 - 58 - 51	iPb } iSb }	Distant. $\Delta b = 1105 \text{ Km.} = 9.9^\circ$.
-148)		04 - 00 - 55		
-149)		04 - 05 - 49	ePb } eSb }	Very small. $\Delta b = 675 \text{ Km.} = 3.0^\circ$.
-150)		07 - 05		
-151)		04 - 39 - 43	iPb } iSb }	Small. $\Delta b = 460 \text{ Km.}$
-152)		40 - 35		
-153)		09 - 05 - 51	ePb } iSb }	Distant. $\Delta b = 935 \text{ Km.} = 8.6^\circ$.
-154)		07 - 39		
-155)		18 - 50 - 05	ePb } iSb }	Distant. $\Delta b = 840 \text{ Km.} = 7.6^\circ$.
-156)		51 - 39		
-157)		19 - 51 - 39	ePb } iSb }	Very small. $\Delta b = 515 \text{ Km.}$
-158)		52 - 57		
-159)		20 - 24 - 55	ePb } eSb }	Very small. $\Delta b = 1015 \text{ Km.} = 9.1^\circ$.
-160)		23 - 49		
-161)		22 - 30 - 49	ePb } eSb }	Very small. $\Delta b = 220 \text{ Km.}$
-162)		31 - 04		
-163)	21	02 - 01 - 49	ePb } iSb }	Distant. $\Delta b = 540 \text{ Km.} = 5.8^\circ$.
-164)		03 - 01		
-165)		03 - 51 - 17	eP } iS }	Distant. $\Delta b = 1480 \text{ Km.} = 13.3^\circ$.
-166)		53 - 55		
-167)		11 - 55 - 29	ePg } eSg }	Very small. $\Delta g = 114 \text{ Km.}$
-168)		45		
-169)		18 - 23 - 21	iPb } iSb }	Very small. $\Delta b = 255 \text{ Km.}$
-170)		50		
-171)		20 - 20 - 20	eP } iS }	Distant. $\Delta = 1450 \text{ Km.} = 13.3^\circ$.
-172)		22 - 58		
-173)		22 - 41 - 40	eP } iS }	Distant. $\Delta = 1655 \text{ Km.} = 14.9^\circ$.
-174)		44 - 34		
-175)	22	11 - 00 - 40	eP } iS }	Distant. $\Delta = 6510 \text{ Km.} = 59.5^\circ$.
-176)		08 - 56		
-177)	23	09 - 13 - 41	iPb } iSb }	Distant. $\Delta b = 1085 \text{ Km.} = 9.7^\circ$.
-178)		18 - 43		
-179)		10 - 03 - 28	iPb } iSb }	Distant. $\Delta b = 1050 \text{ Km.} = 9.5^\circ$.
-180)		08 - 27		
-181)		10 - 52 - 43	eP } iS }	Distant. $\Delta = 2535 \text{ Km.} = 21.0^\circ$.
-182)		53 - 35		
-183)		18 - 43 - 42	ePb } iSb }	Very small. $\Delta b = 255 \text{ Km.}$
-184)		44 - 11		
-185)	24	12 - 33 - 52	iP } iS }	Distant. $\Delta = 7610 \text{ Km.} = 63.5^\circ$.
-186)		42 - 39		
-187)		20 - 19 - 25	iP }	Very small.

February 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-168)	24	22 - 49 - 17 51	ePb } iSb }	Very small. $\Delta b = 500$ Km.
-169)	25	07 - 53 - 21 54	ePb } eSb }	Very small. $\Delta b = 500$ Km.
-170)		15 - 09 - 30	iP	Very small.
-171)	26	00 - 24 - 44	iP	Very small.
-172)		05 - 36 - 39 49	ePg } iSg }	Very small. $\Delta g = 85$ Km.
-173)		11 - 08 - 13 19	ePg } iSg }	Very small. $\Delta g = 50$ Km.
-174)		11 - 40 - 45 45 - 02	eP } iS }	Distant. $\Delta = 2655$ Km. = 23.7° .
-175)		16 - 53 - 53	iP	Very small.
-176)		17 - 55 - 15 21	ePg } iSg }	Very small. $\Delta g = 50$ Km.
-177)		18 - 10 - 11 11 - 11	ePb } eSb }	Very small. $\Delta b = 535$ Km. = 4.9° .
-178)	27	17 - 45 - 44 57	ePg } eSg }	Very small. $\Delta g = 110$ Km.
-179)		22 - 50 - 53 49	ePb } eSb }	Very small. $\Delta b = 140$ Km.
-180)		23 - 28 - 58 29 - 49	ePb } eSb }	Very small. $\Delta b = 450$ Km.
-181)	28	00 - 56 - 49 57 - 45	ePb } iSb }	Very small. $\Delta b = 495$ Km.
-182)		01 - 55 - 05 56 - 35	ePb } iSb }	Distant. $\Delta b = 820$ Km. = 7.4° .
-183)		03 - 34 - 31 35 - 17	ePb } iSb }	Very small. $\Delta b = 405$ Km.
-184)		05 - 12 - 52 13 - 17	iPb } eSb }	Very small. $\Delta b = 220$ Km.
-185)		05 - 51 - 57 52 - 29	ePb } iSb }	Very small. $\Delta = 430$ Km.
-186)		16 - 45 - 53	eP	Distant.
-187)		19 - 22 - 55 25 - 19	ePb } iSb }	Very small. $\Delta b = 250$ Km.
-188)		19 - 26 - 31	eP	Very small.
-189)		21 - 07 - 57 09 - 49	ePb } iSb }	Distant. $\Delta b = 1000$ Km. = 9.0° .
-190)		25 - 51 - 04 53 -	ePb } iSb }	Very small. $\Delta b = 255$ Km.

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MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. 16° 24' 39"

Long. E. 120° 34' 47"

Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u>	
		<u>Seism.</u>	<u>Galv.</u>	<u>Synchronous</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa	3367
	E-W	10.90 "	11.70 "		2000
	N-S	1.84 "	1.67 "		2451
Photoelectric	N-S	11.80 "	12.00 "		1000
	E-W	1.54 "	1.49 "		3000

MARCH 1958

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-191)	1	03 - 28 - 53	ePb	} Very small. $\Delta b = 265$ Km.
		29 - 25	iSb	
-192)		22 - 09 - 20	ePb	} Very small. $\Delta b = 362$ Km.
		10 - 01	iSb	
-193)	2	02 - 19 - 02	ePb	} Very small. $\Delta b = 390$ Km.
		46	eSb	
-194)		02 - 34 - 48	ePb	} Distant. $\Delta b = 910$ Km. = 8.2° .
		36 - 30	iSb	
-195)		06 - 51 - 40	ePb	} Very small. $\Delta b = 335$ Km.
		52 - 18	iSb	
-196)	3?	02 - 16 - 23	eP	Teleseismic.
-197)	✓ 3	07 - 24 - 30	ePb	} Distant. $\Delta b = 765$ Km. = 6.8° .
		25 - 56	iSb	
-198)		16 - 27 - 24	eP	} Distant. $\Delta = 6165$ Km. = 55.5° .
		35 - 14	iS	
-199)	4	05 - 30 - 28	ePb	} Small. $\Delta b = 515$ Km.
		31 - 26	eSb	
-200)	5	11 - 31 - 28	ePb	} Very small. $\Delta b = 425$ Km.
		32 - 16	eSb	
-201)		12 - 45 - 08	ePb	} Very small. $\Delta b = 370$ Km.
		50	iSb	
-202)		19 - 27 - 53	ePb	} Very small. $\Delta b = 245$ Km.
		28 - 21	iSb	

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 203)	6	09 - 59 - 59	eP	Very small.
- 204)		11 - 58 - 54	ePb	Distant. $\Delta b = 1145 \text{ Km.} = 10.3^\circ$.
		12 - 01 - 02	iSb	
- 205)	7	08 - 23 - 40	ePb	Distant. $\Delta b = 1000 \text{ Km.} = 9.0^\circ$. Felt at Surigao Int. IV, Hinatuan Int. III, Mambajao Int. I, Malaybalay, Int. I.
		25 - 32	iSb	
- 206)		11 - 16 - 29	ePg	Very small. $\Delta g = 93 \text{ Km.}$
		40	iSg	
- 207)		12 - 41 - 40	ePb	Very small. $\Delta b = 210 \text{ Km.}$
		42 - 04	iSb	
	8	No quakes.		
- 208)	9	02 - 12 - 01	ePb	Very small. $\Delta b = 283 \text{ Km.}$
		33	iSb	
- 209)		10 - 35 - 00	P	Teleseismic.
- 210)		13 - 15 - 55	iP	Very small.
	10	No quakes.		
	11	Power off 00.19 to 01.29 GMT. Start of Okinawa quake came during this period. Beginning of quake not recorded. Felt at Calayan Int IV, Basco Int III, Aparri, Int. III.		
- 211)		11 - 58 - 07	ePb	Very small. $\Delta b = 175 \text{ Km.}$
		27	iSb	
- 212)		12 - 17 - 51	iPb	Very small. $\Delta b = 175 \text{ Km.}$
		18 - 11	iSb	
- 213)		14 - 05 - 17	eP	Very small.
- 214)		14 - 08 - 35	eP	Distant. $\Delta = 5955 \text{ Km.} = 53.6^\circ$.
		16 - 13	eS	
- 215)		21 - 21 - 41	iPg	Very small. $\Delta g = 110 \text{ Km.}$ Felt at Casiguran Int. III.
		54	iSg	
- 216)	12	08 - 07 - 19	iP	Very small.
- 217)		08 - 40 - 59	ePb	Small. $\Delta b = 480 \text{ Km.}$
		41 - 53	iSb	
- 218)		14 - 01 - 19	ePg	Very small. $\Delta g = 40 \text{ Km.}$
		24	iSg	
- 219)	13	10 - 01 - 19	ePb	Very small. $\Delta b = 595 \text{ Km.} = 5.3^\circ$.
		02 - 26	iSb	
- 220)		23 - 05 - 02	ePb	Very small. $\Delta b = 615 \text{ Km.} = 5.5^\circ$.
		06 - 11	iSb	
- 221)		23 - 50 - 33	iPb	Small. $\Delta b = 560 \text{ Km.} = 5.0^\circ$. Felt at Aurora Int. V, Masbate Int. IV, Legaspi Int. III, Daet Int. III, Manila, Int. II, Roxas City Int I, Iloilo, Int. I.
		51 - 36	iSb	

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 222)	14	09 - 41 - 35	eP	Very small.
- 223)		12 - 34 - 49	eP	Very small.
- 224)	15	00 - 55 - 37	iPb	Distant. $\Delta b = 730 \text{ Km.} = 6.6^\circ$.
		56 - 59	iSb	
- 225)		03 - 08 - 39	iPb	Very small. $\Delta b = 245 \text{ Km.}$
		09 - 07	eSb	
- 226)		05 - 16 - 25	eP	Very small. $\Delta b = 620 \text{ Km.} = 5.6^\circ$. Felt at Masbate Int. IV, Legaspi Int. III.
		17 - 35	iS	
- 227)	16	23 - 55 - 55	ePb	Small. $\Delta b = 990 \text{ Km.} = 8.9^\circ$.
		56 - 46	iSb	
- 228)	17	00 - 48 - 19	iPg	Very small. $\Delta g = 58 \text{ Km.}$
		26	iSg	
- 229)		19 - 16 - 00	P	Teleseismic.
- 230)		20 - 07 - 27	ePb	Very small. $\Delta b = 220 \text{ Km.}$
		52	iSb	
- 231)		21 - 13 - 26	eP	Very small.
- 232)		22 - 14 - 24	ePb	Very small. $\Delta b = 495 \text{ Km.}$
		15 - 20	iSb	
- 233)	18	06 - 07 - 04	ePg	Very small. $\Delta g = 40 \text{ Km.}$
		09	iSg	
- 234)		10 - 10 - 14	eP	Very small.
- 235)		15 - 13 - 05	ePb	Very small. $\Delta b = 605 \text{ Km.} = 5.4^\circ$.
		14 - 13	eSb	
- 236)	19	05 - 43 - 49	ePb	Very small. $\Delta b = 245 \text{ Km.}$
		44 - 17	eSb	
- 237)		11 - 06 - 35	iPg	Very small. $\Delta g = 93 \text{ Km.}$
		46	eSg	
- 238)		14 - 14 - 33	iPb	Very small. $\Delta b = 300 \text{ Km.}$
		15 - 07	iSb	
- 239)		14 - 22 - 35	ePb	Very small. $\Delta b = 283 \text{ Km.}$
		23 - 07	eSb	
- 240)		17 - 34 - 31	ePb	Very small. $\Delta b = 1010 \text{ Km.} = 9.1^\circ$.
		36 - 25	iSb	
- 241)	✓ 20	01 - 48 - 31	iP	Distant. $\Delta = 6790 \text{ Km.} = 61.1^\circ$.
		56 - 57	iS	
- 242)	21	09 - 37 - 41	ePb	Very small. $\Delta b = 362 \text{ Km.}$
		38 - 25	eSb	
- 243)		10 - 01 - 03	iP	Very small.
- 244)		20 - 46 - 47	iPb	Very small. $\Delta b = 148 \text{ Km.}$
		47 - 04	eSb	
- 245)	22	01 - 04 - 04	eP	Distant. $\Delta = 2255 \text{ Km.} = 20.3^\circ$.
		07 - 50	iS	

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 246)	✓ 22	10 - 17 - 02 21 - 45	eP } eS }	Distant. $\Delta = 2990 \text{ Km.} = 26.9^\circ$.
- 247)	✓	11 - 16 - 54	eP }	Very small.
- 248)	✓ 23	10 - 15 - 20 46	iPb } eSb }	Moderate. $\Delta b = 230 \text{ Km.}$ Felt Laoag Int. IV, Tagudin Int. I. Operated strong motion seismograph in Baguio. A few small tremors were recorded on both components.
- 249)		10 - 40 - 05 30	ePb } eSb }	Very small. $\Delta b = 220 \text{ Km.}$
- 250)		10 - 43 - 14 35	ePb } eSb }	Very small. $\Delta b = 185 \text{ Km.}$
- 251)		10 - 48 - 04 13	ePg } iSg }	Very small. $\Delta g = 75 \text{ Km.}$
- 252)		11 - 22 - 40 23 - 05	iPb } iSb }	Very small. $\Delta b = 220 \text{ Km.}$
- 253)		12 - 30 - 32 31 - 09	ePb } iSb }	Very small. $\Delta b = 325 \text{ Km.}$
- 254)		17 - 06 - 00 30	ePb } eSb }	Very small. $\Delta b = 265 \text{ Km.}$
- 255)		18 - 21 - 52 22 - 16	ePb } eSb }	Very small. $\Delta b = 210 \text{ Km.}$
- 256)		18 - 37 - 12 40	ePb } eSb }	Very small. $\Delta b = 245 \text{ Km.}$
- 257)	24	01 - 38 - 42 39 - 07	ePb } eSb }	Very small. $\Delta b = 220 \text{ Km.}$
- 258)		02 - 11 - 02 22	ePb } eSb }	Very small. $\Delta b = 175 \text{ Km.}$
- 259)		08 - 14 - 22 18 - 44	eP } iS }	Distant. $\Delta = 2700 \text{ Km.} = 24.3^\circ$.
- 260)		11 - 12 - 40 13 - 04	ePb } eSb }	Very small. $\Delta b = 210 \text{ Km.}$
- 261)		11 - 23 - 10 34	ePb } eSb }	Very small. $\Delta b = 210 \text{ Km.}$
- 262)		11 - 49 - 00 24	ePb } iSb }	Very small. $\Delta b = 210 \text{ Km.}$
- 263)		11 - 56 - 18 42	iPb } iSb }	Small. $\Delta b = 210 \text{ Km.}$
- 264)		12 - 08 - 24 48	ePb } iSb }	Very small. $\Delta b = 210 \text{ Km.}$
- 265)		12 - 19 - 16 42	ePb } iSb }	Very small. $\Delta b = 230 \text{ Km.}$
- 266)		12 - 22 - 36 46	ePg } eSg }	Very small. $\Delta g = 85 \text{ Km.}$
- 267)		12 - 32 - 28 52	ePb } eSb }	Very small. $\Delta b = 210 \text{ Km.}$
- 268)		12 - 50 - 26 50	ePb } eSb }	Very small. $\Delta b = 210 \text{ Km.}$

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 269)	24	12 - 54 - 00	ePb	} Very small. $\Delta b = 220$ Km.
		25	eSb	
- 270)		13 - 04 - 30	ePb	} Very small. $\Delta b = 230$ Km.
		56	eSb	
- 271)		13 - 30 - 44	ePb	} Very small. $\Delta b = 235$ Km.
		31 - 11	iSb	
- 272)		18 - 45 - 44	ePb	} Very small. $\Delta b = 230$ Km.
		46 - 10	eSb	
- 273)		18 - 59 - 26	eP	Very small.
- 274)	25	07 - 55 - 52	eP	Very small.
- 275)		13 - 04 - 25	eP	Very small.
- 276)		15 - 57 - 55	iPb	} Small. $\Delta b = 605$ Km. = 5.4° .
		59 - 03	iSb	
- 277)		17 - 14 - 51	ePb	} Very small. $\Delta b = 230$ Km.
		15 - 17	iSb	
- 278)		19 - 38 - 01	ePb	} Very small. $\Delta b = 470$ Km.
		54	eSb	
- 279)		20 - 25 - 27	eP	Very small.
- 280)	26	00 - 37 - 47	iPb	} Small. $\Delta b = 510$ Km. = 7.5° .
		39 - 18	iSb	
- 281)		17 - 09 - 20	iPb	} Small. $\Delta b = 250$ Km.
		46	iSb	
- 282)	27	00 - 40 - 32	eP	Very small.
- 283)		18 - 48 - 55	eP	Very small.
- 284)	28	06 - 24 - 52	ePg	} Very small. $\Delta g = 85$ Km.
		25 - 08	eSg	
- 285)	✓	12 - 14 - 54	eP	} Distant. $\Delta = 4910$ Km. = 44.2° .
		21 - 34	iS	
- 286)	29	11 - 34 - 47	ePb	} Very small. $\Delta b = 265$ Km.
		35 - 17	eSb	
- 287)		20 - 55 - 50	ePb	} Very small. $\Delta b = 140$ Km.
		56 - 06	iSb	
x	30	No quakes.		
- 288)	31	06 - 03 - 07	ePg	} Very small. $\Delta g = 100$ Km.
		19	eSg	
- 289)		09 - 35 - 05	ePb	} Very small. $\Delta b = 245$ Km.
		33	eSb	

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MANILA OBSERVATORY
Mirador, Baguio City
Philippines

MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. 16° 24' 39" Long. E. 120° 34' 47" Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u> <u>Synchronous</u>
		<u>Sec.</u>	<u>Galv.</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa 3367
	E-W	10.90 "	11.70 "	2000
	N-S	1.84 "	1.67 "	2451
Photoelectric	N-S	11.80 "	12.00 "	1000
	E-W	1.54 "	1.49 "	3000

APRIL 1958

<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 290)	1 06 - 05 - 25	ePg } iSg }	Very small. $\Delta g = 85$ Km.
- 291)	23 - 57 - 00 59 - 10	ePo } iSb }	Distant. $\Delta b = 1160$ Km. = 10.4° . Felt Iloilo Int I, Canlaon Int. I.
- 292)	2 10 - 31 - 40 32 - 03	ePb } iSb }	Very small. $\Delta b = 200$ Km.
- 293)	21 - 07 - 42 08 - 08	ePb } eSb }	Very small. $\Delta b = 230$ Km.
- 294)	21 - 40 - 30 52	ePb } iSb }	Very small. $\Delta b = 190$ Km.
- 295)	3 01 - 35 - 45	eP	Very small.
- 296)	06 - 38 - 24 39 - 00	ePb } iSb }	Very small. $\Delta b = 318$ Km.
- 297)	4 ✓ 07 - 24 - 17 30 - 07	iP } eS }	Distant. $\Delta = 4045$ Km. = 36.4° .
- 298)	07 - 37 - 17 43 - 13	iP } iS }	Distant. $\Delta = 4135$ Km. = 37.2° .
- 299)	15 - 45 - 24 51 - 13	iP } iS }	Distant. $\Delta = 4020$ Km. = 36.2° .
- 300)	16 - 51 - 42	eP	
x	5	No quakes recorded.	
- 301)	6 06 - 54 - 09 31	ePb } iSb }	Very small. $\Delta b = 190$ Km.
- 302)	06 - 59 - 23 39	ePb } iSb }	Very small. $\Delta b = 140$ Km.
- 303)	07 - 16 - 18 29	ePg } iSg }	Very small. $\Delta g = 93$ Km.
- 304)	07 - 26 - 30 27 - 49	ePb } eSb }	Very small. $\Delta b = 165$ Km.

April 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 305)	6	08 - 27 - 39	ePb	} Very small. $\Delta b = 155$ Km.
		57	iSb	
- 306)		09 - 42 - 05	ePg	} Very small. $\Delta g = 114$ Km.
		19	eSg	
- 307)		09 - 44 - 58	ePb	} Very small. $\Delta b = 175$ Km.
		45 - 18	eSb	
- 308)		10 - 45 - 57	ePg	} Very small. $\Delta g = 114$ Km.
		46 - 11	eSg	
- 309)		13 - 21 - 51	ePb	} Very small. $\Delta b = 190$ Km.
		22 - 13	iSb	
- 310)		18 - 59 - 31	eP	} Distant. $\Delta = 2235$ Km. = 20.1° .
		19 - 03 - 15	iS	
- 311)		19 - 58 - 01	ePb	} Very small. $\Delta b = 200$ Km.
		24	iSb	
- 312)		23 - 55 - 51	eP	} Distant. $\Delta = 1355$ Km. = 12.2° . Felt at Surigao Int. III, Catbalogan Int.I.
		58 - 17	iS	
- 313)	7	✓ 15 - 42 - 08	eP	} Distant. $\Delta = 7990$ Km. = 71.9° .
		51 - 33	iS	
- 314)		✓ 18 - 11 - 09	eP	} Distant. $\Delta = 3245$ Km. = 29.2° .
		16 - 09	iS	
- 315)		✓ 18 - 36 - 21	eP	Very small.
- 316)		✓ 19 - 20 - 10	iP	Distant.
- 317)	8	✓ 00 - 25 - 00	P	Teleseismic.
- 318)		✓ 13 - 32 - 34	eP	Very small.
- 319)		✓ 18 - 19 - 54	ePb	} Very small. $\Delta b = 390$ Km.
		20 - 38	iSb	
- 320)	9	05 - 20 - 30	eP	Very small.
- 321)		07 - 51 - 22	ePb	} Very small. $\Delta b = 155$ Km.
		40	eSb	
- 322)		✓ 18 - 01 - 53	eP	} Distant. $\Delta = 1735$ Km. = 15.6° .
		04 - 55	iS	
- 323)	10	03 - 41 - 09	ePb	} Very small. $\Delta b = 175$ Km.
		29	iSb	
- 324)		✓ 11 - 03 - 01	eP	Very small.
- 325)		✓ 11 - 56 - 10	eP	Distant.
- 326)		19 - 21 - 22	iPg	} Very small. $\Delta g = 58$ Km.
		29	eSg	
- 327)	✓ 11	01 - 04 - 11	iP	} Distant. $\Delta = 3355$ Km. = 30.2° .
		09 - 18	iS	
- 328)		03 - 20 - 10	ePg	} Very small. $\Delta g = 93$ Km.
		21	iSg	
- 329)		09 - 17 - 29	ePb	} Very small. $\Delta b = 865$ Km. = 7.7° .
		19 - 06	iSb	
- 330)		✓ 23 - 19 - 05	iP	} Distant. $\Delta = 4180$ Km. = 37.6° .
		25 - 04	iS	
- 331)		✓ 23 - 28 - 12	iP	} Distant. $\Delta = 1565$ Km. = 14.1° .
		30 - 58	iS	

April 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 332)	12	✓ 13 - 27 - 46 29 - 37	1Pb } iSb }	Distant. $\Delta b = 990 \text{ Km.} = 8.9^\circ$.
- 333)		16 - 03 - 07 26	ePb } iSb }	Very small. $\Delta b = 165 \text{ Km.}$
- 334)		23 - 09 - 03 27	ePb } eSb }	Very small. $\Delta b = 210 \text{ Km.}$
- 335)	13	01 - 35 - 10 19	ePg } eSg }	Very small. $\Delta g = 75 \text{ Km.}$
- 336)		01 - 39 - 06 12	ePg } iSg }	Very small. $\Delta g = 50 \text{ Km.}$
- 337)		✓ 09 - 18 - 55 28 - 25	iP } iS }	Distant. $\Delta = 8080 \text{ Km.} = 72.7^\circ$.
- 338)		✓ 12 - 37 - 50 44 - 52	eP } iS }	Distant. $\Delta = 5300 \text{ Km.} = 47.7^\circ$.
- 339)		13 - 47 - 30 48 - 02	ePb } eSb }	Very small. $\Delta b = 283 \text{ Km.}$
- 340)		15 - 46 - 08 47 - 10	ePb } iSb }	Small. $\Delta b = 550 \text{ Km.} = 4.9^\circ$.
- 341)	14	✓ 21 - 52 - 32	eP	Distant. Ecuador quake.
- 342)	15	04 - 12 - 16 28	iPg } iSg }	Very small. $\Delta g = 100 \text{ Km.}$
- 343)		06 - 21 - 58 22 - 34	ePb } eSb }	Very small. $\Delta b = 318 \text{ Km.}$
- 344)		✓ 10 - 00 - 23 44	iPb } iSb }	Small. $\Delta b = 185 \text{ Km.}$ Felt in Manila Int. IV. Operated starting pendulum of strong motion seismograph. Only straight lines on record.
- 345)	16	12 - 15 - 11	eP	Very small.
- 346)		✓ 12 - 37 - 09 39	iPb } iSb }	Small. $\Delta b = 265 \text{ Km.}$
- 347)	17	04 - 16 - 41	iP	Very small.
- 348)		04 - 35 - 55	iP	Very small.
- 349)		✓ 06 - 29 - 27 35 - 36	iP } iS }	Distant. $\Delta = 4345 \text{ Km.} = 39.1^\circ$.
- 350)		✓ 10 - 12 - 07 18 - 03	iP } iS }	Distant. $\Delta = 4135 \text{ Km.} = 37.2^\circ$.
- 351)	18	09 - 28 - 03 15	iPg } eSg }	Very small. $\Delta g = 100 \text{ Km.}$
- 352)	19	00 - 26 - 19	eP	Distant.
- 353)		14 - 19 - 23	eP	Very small.
- 354)	20	11 - 23 - 19 37	ePb } eSb }	Very small. $\Delta b = 155 \text{ Km.}$
- 355)		12 - 57 - 19 59	ePb } iSb }	Small. $\Delta b = 355 \text{ Km.}$
- 356)	✓ 21	05 - 33 - 59	eP	Distant.
- 357)		✓ 20 - 26 - 09 35 - 39	eP } iS }	Distant. $\Delta = 8080 \text{ Km.} = 72.7^\circ$.

April 1958...

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 358)	✓ 21	22 - 43 - 01	eP	Distant.
- 359)	✓ 22	00 - 02 - 35	eP	Distant. $\Delta = 2635$ Km. = 23.7° .
		06 - 52	iS	
- 360)		01 - 15 - 25	iPb	Small. $\Delta = 875$ Km. = 7.8° .
		17 - 05	eSb	
- 361)		08 - 04 - 29	ePg	Very small. $\Delta g = 100$ Km.
		41	eSg	
- 362)		09 - 12 - 09	eP	Distant. $\Delta = 1890$ Km. = 17.0° .
		15 - 25	iS	
- 363)	23 ✓	03 - 05 - 13	eP	Distant. $\Delta = 4135$ Km. = 37.2° .
		11 - 09	eS	
- 364)		06 - 03 - 00	P	Teleseismic.
- 365)		08 - 08 - 19	iPb	Very small. $\Delta b = 335$ Km.
		57	iSb	
- 366)		10 - 58 - 44	iPb	Very small. $\Delta b = 290$ Km.
		59 - 17	iSb	
- 367)		14 - 34 - 39	iP	Very small.
- 368)		16 - 35 - 49	eP	Distant.
- 369)	24	03 - 10 - 35	ePb	Very small. $\Delta b = 185$ Km.
		56	eSb	
- 370)		09 - 47 - 01	ePb	Very small. $\Delta b = 335$ Km.
		39	iSb	
- 371)		20 - 56 - 08	ePg	Very small. $\Delta g = 93$ Km.
		19	iSg	
x	25	No quakes recorded.		
- 372)	26	00 - 56 - 29	ePb	Very small. $\Delta b = 370$ Km.
		57 - 11	eSb	
- 373)	✓	09 - 35 - 30	eP	Distant. $\Delta = 5965$ Km. = 53.7° .
		43 - 09	eS	
- 374)		15 - 57 - 18	ePg	Very small. $\Delta g = 100$ Km.
		30	iSg	
- 375)	27	06 - 03 - 56	eP	Very small.
- 376)		09 - 20 - 12	ePg	Very small. $\Delta g = 68$ Km.
		20	iSg	
- 377)		14 - 59 - 31	iPb	Very small. $\Delta b = 200$ Km.
		54	iSb	
x	28	No quakes recorded.		
- 378)	29	19 - 20 - 49	ePb	Very small. $\Delta b = 148$ Km.
		21 - 06	iSb	
- 379)	30	11 - 53 - 19	ePg	Very small. $\Delta g = 114$ Km.
		33	iSg	

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Bagueis

MANILA OBSERVATORY
Mirador, Manila City
Philippines

MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. 16° 24' 39"

Long. E. 120° 34' 47"

Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u> <u>Synchronous</u>
		<u>Seism.</u>	<u>Galv.</u>	
Photographic	Z	1.41 sec.	1.37 sec.	Circa 3367
	E-W	10.90 "	11.70 "	2000
	N-S	1.84 "	1.67 "	2451
Photoelectric	N-S	11.80 "	12.00 "	1000
Visual Recording	E-W	1.54 "	1.9 "	3000

MAY 1958

<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>		
- 380)	00 - 38 - 30	iP	Distant Δ = 5745 km. 51.7°.		
	45 - 57	iS			
	- 381)	06 - 15 - 43		ePb	Very small Δ b = 230 km.
		16 - 09		eSb	
- 382)	07 - 12 - 39	iPb	Small Δ b = 190. Felt Iacag Int. IV		
	13 - 01	iSb			
x 2	NO QUITE RECORDED				
- 383)	09 - 32 - 44	iP	Very small. Small Δ b = 283 km.		
	- 384)	17 - 51 - 10		iPb	
		42		iSb	
- 385)	01 - 58 - 16	ePb	Very small Δ b = 318 km.		
	52	iSb			
	- 386)	05 - 14 - 40		iPb	Very small Δ b = 245 km.
15 - 08		iSb			
- 387)	16 - 30 - 47	eP	Very small.		
- 388)	05 - 18 - 25	ePb	Very small Δ b = 190 km.		
	47	iSb			
	- 389)	11 - 11 - 09		ePb	Very small Δ b = 840 km. 7.6°.
12 - 45		iSb			
- 390)		23 - 45 - 46	ePg	Very small Δ g = 100 km.	
	45 - 58	eSg			
- 391)	16 - 32 - 40	ePb	Very small Δ b = 310 km.		
	33 - 15	iSb			
- 392)	19 - 13 - 34	iPb	Very small Δ b = 265 km.		
	14 - 04	iSb			
- 393)	19 - 26 - 10	iPb	Very small Δ b = 235 km.		
	37	iSb			

MAY 1958.....

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 394)		19 - 30 - 18	ipb	} Very small $\Delta b = 235$ km.
		45	ipb	
- 395)		23 - 59 - 19		Very small.
- 396)	7	16 - 42 - 4	ipb	} Very small $\Delta b = 175$ km.
		43 - 06	esb	
- 397)	8	05 - 27 - 02	epb	} Very small $\Delta b = 445$ km.
		52	isb	
- 398)		13 - 00 - 38	ep	} Distant $\Delta = 5455$ km. 31.1° .
		05 - 51	is	
- 399)	9	06 - 52 - 05	epb	} Very small $\Delta b = 210$ km.
		27	isb	
- 400)		18 - 21 - 15	epb	} Very small $\Delta b = 310$ km.
		50	isb	
< 10		NO QUAKES RECORDED		
- 401)	11	00 - 40 - 11	ep	Distant.
- 402)		05 - 35 - 37	ep	Very small.
- 403)		05 - 45 - 16	ip	Distant.
- 404)	12	16 - 55 - 07	ip	} Distant $\Delta = 2400$ km. 21.6° .
		59 - 05	is	
x 13		NO QUAKES RECORDED		
- 405)	14	04 - 05 - 39	ep	} Distant $\Delta = 4080$ km. 36.7° .
		11 - 31	is	
- 406)		12 - 41 - 15	ep	} Distant $\Delta = 3090$ km. 27.8° .
		46 - 05	es	
- 407)	15	18 - 36 - 34	epb	} Very small $\Delta b = 355$ km.
		37 - 14	esb	
- 408)		18 - 47 - 22	esb	} Distant $\Delta b = 965$ km. 8.6° . Felt in Cuyo - Int. V Iloilo " III Canlaon " I
		49 - 10	esb	
< 16		NO QUAKES RECORDED		
- 409)	17	07 - 09 - 08	ep	} Distant $\Delta = 3565$ km. 32.1° .
		14 - 28	is	
- 410)		16 - 52 - 46	ep	Distant.
- 411)	18	02 - 42 - 23	ip	} Distant $\Delta = 5935$ km. 53.4° .
		50 - 00	is	
- 412)		03 - 10 - 48	epg	} Very small $\Delta g = 85$ km.
		58	esg	
- 413)		12 - 30 - 44	ip	} Distant $\Delta = 5845$ km. 52.6° .
		38 - 16	is	

MAY 1958.....

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-414)	19	19 - 24 - 03		Very small.
-415)	20	01 - 55 - 09	ePg	} Very small $\Delta g = 114$ km.
		23	eSg	
-416)		05 - 55 - 14	ep	} Very small.
-417)		19 - 22 - 00	ePb	
		41	iSb	} Very small $\Delta b = 362$ km.
-418)	21	04 - 26 - 51	eP	Very small.
-419)		04 - 46 - 45	eP	Very small.
-420)		07 - 08 - 46	eP	Very small.
-421)		25 - 54 - 40	eP	Very small.
-422)	22	15 - 14 - 33	eP	} Distant $\Delta = 3480$ km. 31.3° .
		19 - 48	iS	
-423)	23	22 - 44 - 33	ePb	} Very small $\Delta b = 210$ km.
		59	iSb	
x	24	NO QUAKES RECORDED		
-424)	25	17 - 14 - 30	eP	} Distant $\Delta = 2080$ km. 18.7° .
		48 - 22	iS	
-425)		21 - 30 - 38	eP	Distant.
-426)	26	04 - 35 - 30	eP	Very small.
-427)		11 - 07 - 11	eP	Very small.
-428)		16 - 58 - 00	ePb	} Very small $\Delta b = 190$ km.
		22	iSb	
x	27	NO QUAKES RECORDED		
-429)	28	05 - 18 - 40	ePb	} Very small $\Delta b = 140$ km.
		56	eSb	
-430)		21 - 00 - 20	ePb	} Very small $\Delta b = 140$ km.
		36	iSb	
-431)	29	05 - 25 - 46	eP	Very small.
-432)		05 - 29 - 14	iP	Very small.
-433)	30	05 - 58 - 11	eP	Very small.
-434)		13 - 22 - 14	ePb	} Very small $\Delta b = 175$ km.
		34	iSb	
-435)		16 - 13 - 44	ePb	} Distant $\Delta b = 840$ km. 7.6° .
		15 - 18	iSb	
-436)		18 - 15 - 48	eP	} Distant $\Delta = 8200$ km. 73.8° .
		25 - 24	iS	
-437)		19 - 52 - 05	eP	} Very small $\Delta b = 540$ km. 4.9° .
		53 - 06		
-438)		19 - 56 - 04	ePg	} Very small $\Delta g = 114$ km.
		48	iSg	
-439)	31	05 - 28 - 12	eP	Very small.
-440)		19 - 42 - 18	eP	} Distant $\Delta = 6210$ km. 55.5° .
		50 - 11	iS	

MANILA OBSERVATORY
Mirador, Baguio City
Philippines

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MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. 16° 24' 39"

Long. E. 120° 34' 47"

Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u>	
		<u>Seism.</u>	<u>Galv.</u>	<u>Synchronous</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa	5367
	E-W	10.90 "	11.70 "		2000
	N-S	1.84 "	1.67 "		2451
Photoelectric	N-S	11.80 "	12.00 "		1000
	E-W	1.54 "	1.49 "		3000

JUNE 1958

<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-441)	1 10 - 52 - 12	eP	Very small.
-442)	2 02 - 47 - 34	ePb	Very small. $\Delta b = 370$ Km.
	48 - 16	eSb	
-443)	07 - 01 - 02	ePb	Very small. $\Delta b = 575$ Km. = 5.1° .
	02 - 07	iSb	
-444) ✓	3 19 - 41 - 39	iP	Distant. $\Delta = 6200$ Km. = 55.8° .
	49 - 31	iS	
-445)	22 - 17 - 47	ePg	Very small. $\Delta g = 50$ Km.
	53	iSg	
-446) ✓	4 14 - 40 - 40	eP	Distant. $\Delta = 7320$ Km. = 65.9° .
	49 - 34	iS	
-447)	5 02 - 30 - 46	ePb	Very small. $\Delta b = 245$ Km.
	31 - 14	iSb	
-448)	04 - 51 - 26	ePb	Small. $\Delta b = 175$ Km.
	52 - 46	iSb	
-449)	05 - 15 - 02	ePb	Very small. $\Delta b = 245$ Km.
	30	eSb	
-450)	6 ✓ 09 - 30 - 55	eP	Distant.
-451)	19 - 35 - 19	eP	Distant.
-452)	7 19 - 24 - 06	eP	Distant. $\Delta = 7700$ Km. = 69.3° .
	33 - 17	eS	
-453)	8 ✓ 00 - 49 - 44	eP	Distant. $\Delta = 5655$ Km. = 50.9° .
	57 - 06	iS	
-454)	08 - 56 - 12	eP	Very small.
-455)	10 - 51 - 30	ePb	Very small. $\Delta b = 155$ Km.
	48	iSb	

June 1958 ...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 456)	9	09 - 56 - 23	ePb	Very small. $\Delta b = 283$ Km.
		57 - 55	iSb	
- 457)		17 - 16 - 41	ePb	Very small. $\Delta b = 245$ Km.
		17 - 09	iSb	
- 458)	10	04 - 57 - 49	eP	Distant. $\Delta = 2080$ Km. = 18.7° .
		05 - 01 - 19	iS	
- 459)	11	19 - 23 - 32	ePb	Distant. $\Delta b = 1160$ Km. = 10.4° .
		25 - 42	iSb	
- 460)	12	21 - 03 - 53	eP	Distant. $\Delta = 7300$ Km. = 65.7° .
		12 - 46	iS	
- 461)	13	08 - 47 - 55	ePb	Very small. $\Delta b = 200$ Km.
		48 - 18	iSb	
- 462)		09 - 46 - 30	iPb	Very small. $\Delta b = 245$ Km.
		58	iSb	
x	14	No quakes recorded.		
- 463)	15	01 - 57 - 58	ePg	Very small. $\Delta g = 58$ Km.
		58 - 05	eSg	
- 464)		08 - 27 - 05	iPb	Very small. $\Delta b = 130$ Km. Felt at Mirador, Baguio, Int. I.
		20	iSb	
- 465)		11 - 40 - 08	eP	Distant. $\Delta = 4065$ Km. = 36.6° .
		46 - 00	iS	
- 466)		15 - 04 - 52	iP	Distant. $\Delta = 6700$ Km. = 60.3° .
		13 - 13	iS	
- 467)		17 - 28 - 39	eP	Distant. $\Delta = 4010$ Km. = 36.1° .
		34 - 27	eS	
- 468)	16	07 - 33 - 05	iPg	Very small. $\Delta g = 40$ Km.
		10	iSg	
- 469)		08 - 24 - 19	eP	Distant.
- 470)	17	15 - 12 - 23	eP	Very small.
- 471)		19 - 11 - 35	iP	Distant. $\Delta = 2480$ Km. = 22.3° .
		15 - 39	iS	
x	18	No quakes recorded.		
- 472)	19	01 - 26 - 51	ePb	Very small. $\Delta b = 190$ Km.
		27 - 13	iSb	
- 473)		05 - 26 - 09	eP	Distant. $\Delta = 4735$ Km. = 42.6° .
		32 - 39	iS	
- 474)		08 - 38 - 21	ePb	Very small. $\Delta b = 335$ Km.
		59	iSb	
- 475)		09 - 03 - 19	ePb	Very small. $\Delta b = 370$ Km.
		04 - 01	eSb	
- 476)	20	11 - 09 - 30	ePb	Very small. $\Delta b = 130$ Km.
		45	iSb	
- 477)		11 - 58 - 36	ePg	Very small. $\Delta g = 93$ Km.
		47	iSg	

June 1958 ...

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
x	21	No quakes recorded.		
x	22	No quakes recorded.		
-478)	✓ 23	05 - 17 - 00	eP	Distant.
-479)	24	06 - 46 - 14	iP	} Distant. $\Delta = 1955$ Km. = 17.6° .
		49 - 36	iS	
-480)		09 - 19 - 00	eP	} Distant. $\Delta = 3890$ Km. = 35.0° .
		24 - 40	iS	
-481)		18 - 18 - 53	iPb	} Very small. $\Delta b = 265$ Km.
		19 - 23	iSb	
-482)	✓ 25	01 - 30 - 43	eP	Distant.
-483)		09 - 42 - 51	iP	} Distant. $\Delta = 3090$ Km. = 27.8° .
		47 - 41	eS	
-484)		12 - 51 - 14	iP	} Distant. $\Delta = 4000$ Km. = 36.0° .
		57 - 01	iS	
-485)	26	03 - 47 - 36	eP	Very small.
-486)		✓ 04 - 46 - 54	iP	} Distant. $\Delta = 5110$ Km. = 46.0° .
		53 - 45	iS	
-487)		✓ 07 - 41 - 37	eP	} Distant. $\Delta = 2500$ Km. = 22.5° .
		45 - 43	iS	
-488)		13 - 46 - 19	ePb	} Very small. $\Delta b = 290$ Km.
		52	iSb	
-489)		✓ 23 - 34 - 53	eP	} Distant. $\Delta = 2645$ Km. = 23.8° .
		39 - 11	eS	
-490)	27	04 - 02 - 55	eP	} Distant. $\Delta = 2255$ Km. = 20.3° .
		06 - 41	iS	
-491)		✓ 06 - 03 - 55	eP	Distant. Teleseismic.
-492)		09 - 12 - 41	ePb	} Very small. $\Delta b = 175$ Km.
		13 - 01	iSb	
-493)	28	✓ 19 - 37 - 42	iP	} Distant. $\Delta = 4510$ Km. = 40.6° .
		44 - 00	iS	
-494)	29	✓ 09 - 26 - 15	eP	} Distant. $\Delta = 8235$ Km. = 74.1° .
		35 - 52	iS	
-495)		✓ 12 - 52 - 20	eP	Very small.
-496)		19 - 25 - 43	iPb	} Very small. $\Delta b = 130$ Km.
		58	iSb	
-497)		23 - 18 - 29	iP	Distant.
-498)	30	08 - 35 - 00	iP	Very small.
-499)		09 - 02 - 50	ePb	} Very small. $\Delta b = 370$ Km.
		03 - 32	iSb	
-500)		09 - 38 - 45	eP	Very small.
-501)		✓ 18 - 31 - 56	iP	} Distant. $\Delta = 2710$ Km. = 24.4° .
		35 - 59	iS	

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MANILA OBSERVATORY
 Mirador, Baguio City
 Philippines

MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. 16° 24' 39"

Long. E. 120° 34' 47"

Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u>	
		<u>Seism.</u>	<u>Galv.</u>	<u>Synchronous</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa	3367
	E-W	10.90 "	11.70 "		2000
	N-S	1.84 "	1.67 "		2451
Photoelectric Visual Recording	N-S	11.80 "	12.00 "		1000
	E-W	1.54 "	1.49 "		3000

JULY 1958

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 502)	1	09 - 50 - 58	eP	Very small.
- 503)		06 - 03 - 16	eP	Distant. $\Delta = 6535$ Km. = 58.7° .
		11 - 27	eS	
- 504)		11 - 23 - 49	eP	Distant. $\Delta = 3090$ Km. = 27.8° .
		28 - 39	iS	
- 505)		12 - 05 - 18	ePg	Very small. $\Delta_g = 110$ Km.
		31	iSg	
- 506)		13 - 49 - 43	ePg	Very small. $\Delta_g = 85$ Km.
		53	iSg	
- 507)	2	04 - 58 - 45	eP	Very small.
- 508)		05 - 23 - 49	ePb	Very small. $\Delta_b = 130$ Km.
		24 - 04	iSb	
- 509)		15 - 32 - 51	ePb	Very small. $\Delta_b = 210$ Km.
		33 - 15	iSb	
- 510)	3	05 - 55 - 57	eP	Distant.
- 511)		06 - 38 - 41	iP	Distant.
- 512)		06 - 57 - 59	ePb	Very small. $\Delta_b = 155$ Km.
		58 - 17	eSb	
- 513)		19 - 24 - 27	ePb	Very small. $\Delta_b = 318$ Km.
		25 - 03	iSb	
- 514)		21 - 25 - 54	eP	Very small.
- 515)	4	01 - 23 - 33	iPg	Very small. $\Delta_g = 100$ Km.
		45	iSg	
- 516)		01 - 32 - 47	iPb	Very small. $\Delta_b = 165$ Km.
		33 - 06	iSb	

July 1958...

- 2 -

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 517)	4	05 - 34 - 11 17	ePg } iSg }	Very small. $g = 50$ Km.
- 518)		12 - 55 - 13	iP	Very small.
- 519)		18 - 36 - 54 39 - 47	iP } iS }	Distant. $\Delta = 1645$ Km. = 14.8° . Felt at Davao, Int. III; Cotabato, Int. III; Zamboanga, Int. I.
- 520)	5	06 - 23 - 01 13	ePg } iSg }	Very small. $\Delta g = 100$ Km.
- 521)		23 - 26 - 55	eP	Distant.
- 522)		23 - 44 - 59 45 - 15	iPb } iSb }	Very small. $\Delta b = 140$ Km.
- 523)	6	03 - 56 - 26 52	iPb } iSb }	Very small. $\Delta b = 230$ Km.
- 524)		09 - 22 - 30	eP	Very small.
- 525)		11 - 34 - 42 35 - 02	ePb } iSb }	Very small. $\Delta b = 175$ Km.
- 526)		19 - 51 - 39 53 - 37	ePb } iSb }	Very small. $\Delta b = 1055$ Km. = 9.5° .
- 527)		23 - 39 - 35	eP	Very small.
- 528)	7	00 - 36 - 49 37 - 06	ePb } iSb }	Very small. $\Delta b = 148$ Km.
- 529)		01 - 20 - 53 21 - 07	ePg } iSg }	Very small. $\Delta g = 114$ Km.
- 530)		14 - 24 - 53 25 - 27	iPb } iSb }	Small. $\Delta b = 300$ Km.
- 531)	8	06 - 02 - 47 03 - 03	ePb } iSb }	Very small. $\Delta b = 140$ Km.
- 532)		08 - 00 - 33 01 - 23	ePb } iSb }	Very small. $\Delta b = 445$ Km.
- 533)		23 - 25 - 24 28	ePg } iSg }	Very small. $\Delta g = 35$ Km.
×	9	No quakes recorded.		
- 534)	10	06 - 28 - 18 38 - 34	eP } iS }	Distant. $\Delta = 9125$ Km. = 82.1° .
- 535)	11	00 - 27 - 11	iP	Very small.
- 536)	12	10 - 59 - 53 11 - 00 - 17	iPb } iSb }	Small. $\Delta b = 210$ Km.
- 537)		13 - 55 - 00	eP	Very small.
- 538)	13	12 - 12 - 23	iP	Very small.
×	14	No quakes recorded.		

July 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
<	15	No quakes recorded.		
- 539)	16	07 - 57 - 17	ePg } iSg }	Very small. $\Delta g = 100$ Km.
- 540)		15 - 33 - 34	iPg } iSg }	Very small. $\Delta g = 85$ Km.
		29		
		44		
<	17	No quakes recorded.		
- 541)	18	00 - 49 - 57	ePb } iSb }	Very small. $\Delta b = 235$ Km.
- 542)		18 - 43 - 16	ePb } iSb }	Very small. $\Delta b = 1000$ Km. = 9° .
- 543)		21 - 40 - 30	iP	Small.
- 544)	19	06 - 35 - 53	iP } iS }	Distant. $\Delta = 2710$ Km. = 24.4° .
- 545)		17 - 41 - 51	eP } iS }	Very small. $\Delta = 1245$ Km. = 11.2° .
- 546)		18 - 21 - 19	iP } iS }	Distant. $\Delta = 2235$ Km. = 20.1° .
- 547)		19 - 59 - 01	eP	Very small.
- 548)		22 - 18 - 34	iP } iS }	Distant. $\Delta = 2190$ Km. = 19.7° .
		22 - 15		
- 549)	20	02 - 22 - 44	ePb } iSb }	Very small. $\Delta b = 275$ Km.
- 550)		13 - 22 - 12	iPb } eSb }	Very small. $\Delta b = 575$ Km. = 5.1° .
		23 - 17		
- 551)	21	07 - 32 - 02	iP } iS }	Distant. $\Delta = 3800$ Km. = 34.2° .
- 552)		14 - 47 - 21	iP	Distant.
- 553)	22	20 - 30 - 59	iPb } eSb }	Small. $\Delta b = 265$ Km.
		31 - 29		
- 554)	23	06 - 37 - 15	iPg } iSg }	Very small. $\Delta g = 35$ Km. Apparently three very small quakes in two minutes.
- 555)		10 - 32 - 39	eP } iS }	Distant. $\Delta = 2645$ Km. = 23.8° .
		36 - 57		
- 556)	24	20 - 21 - 33	ePg } iSg }	Very small. $\Delta g = 93$ Km.
		44		
- 557)	25	13 - 48 - 03	ePb } iSb }	Very small. $\Delta b = 355$ Km.
		43		
- 558)		18 - 11 - 38	iPg } iSg }	Very small. $\Delta g = 100$ Km.
		50		

July 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
559)	26 ✓ 18h	17 - 56 - 14 07 - 15	iP } iS }	Distant. Δ approximately 10,145 Km. = 90.1° .
560)	27 ✓	03 - 29 - 13	iP	Very small.
561)	28	01 - 30 - 01	iP	Very small.
562)		15 - 52 - 19 45	ePb } iSb }	Very small. $\Delta b = 230$ Km.
563)	29	09 - 19 - 59 20 - 53	ePb } iSb }	Very small. $\Delta b = 480$ Km.
564)	30	00 - 40 - 28 39	iPg } eSg }	Very small. $\Delta g = 93$ Km.
565)		02 - 54 - 27 00 - 19	iP } eS }	Distant. $\Delta = 4065$ Km. = 36.6° .
566)		04 - 50 - 34 55 - 17	iP } iS }	Distant. $\Delta = 3000$ Km. = 27.0° .
567)		07 - 37 - 37 41 - 46	eP } iS }	Distant. $\Delta = 2535$ Km. = 22.8° .
568)		10 - 07 - 53 08 - 31	ePb } eSb }	Very small. $\Delta b = 335$ Km.
569)		13 - 57 - 37 57 - 27	ePb } iSb }	Very small. $\Delta b = 445$ Km. & inverted?
x	31	No quakes recorded.		

- o - 0 - o -
- 0 - 0 -
- 0 -
-

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Lat. N. 16° 24' 39"

Long. E. 120° 34' 47"

Alt. 1507 meters

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Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u>	
		<u>Seism.</u>	<u>Galv.</u>	<u>Synchronous</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa	3367
	E-W	10.90 "	11.70 "		2000
	N-S	1.84 "	1.67 "		2451
Photoelectric	N-S	11.80 "	12.00 "		1000
	E-W	1.54 "	1.49 "		3000
Visual Recording					

AUGUST 1958

<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 570)	1 ✓ 05 - 48 - 19	eP	Distant. $\Delta = 7120 \text{ Km.} = 64.1^\circ$
	57 - 03	iS	
- 571)	06 - 34 - 43	ePb	Very small. $\Delta b = 230 \text{ Km.}$
	35 - 09	iSb	
- 572)	12 - 29 - 12	iPb	Small. $\Delta b = 245 \text{ Km.}$ Felt at Manila Int. II, Calapan Int. II, Romblon Int. I.
	40	iSb	
x	2	No quakes recorded.	
- 573)	3 ✓ 01 - 16 - 47	iP	Distant. $\Delta = 6820 \text{ Km.} = 61.4^\circ$
	25 - 15	eS	
- 574)	05 - 38 - 17	iP	Very small. $\Delta b = 355 \text{ Km.}$
- 575)	08 - 12 - 39	ePb	
	13 - 19	eSb	
- 576)	09 - 44 - 27	eP	Very small.
- 577)	15 - 10 - 03	iP	Distant. Felt at Surigao Int. III.
- 578)	4 ✓ 04 - 18 - 29	iP	Distant. $\Delta = 2545 \text{ Km.} = 22.9^\circ$
	22 - 39	iS	
- 579)	16 - 07 - 00	eP	Very small.
- 580)	5 16 - 27 - 35	iPb	Very small. $\Delta b = 155 \text{ Km.}$
	53	iSb	
- 581)	6 ✓ 21 - 20 - 46	iP	Distant.
x	7	No quakes recorded.	

August 1958 ...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 582)	8	14 - 09 - 14 31	ePb } iSb }	Very small. $\Delta b = 148$ Km.
- 583)	9	13 - 40 - 32 50	ePb } iSb }	Very small. $\Delta b = 155$ Km.
- 584)	10	13 - 11 - 15 36	ePb } iSb }	Very small. $\Delta b = 185$ Km.
- 585)		✓ 18 - 13 - 07 18 - 51	iP } iS }	Distant. $\Delta = 3945$ Km. = 35.5° .
- 586)		✓ 23 - 46 - 35	eP	Very small.
x	11	No quakes recorded.		
- 587)	12	16 - 57 - 18	eP	Very small.
- 588)		19 - 29 - 08 ✓ 32 - 15	eP } iS }	Distant. $\Delta = 1790$ Km. = 15.1° .
- 589)		19 - 58 - 29 43	ePg } eSg }	Very small. $\Delta g = 114$ Km.
- 590)		20 - 27 - 56 28 - 09	iPg } iSg }	Very small. $\Delta g = 110$ Km. Felt at Villaviciosa, Abra Prov. Int. I.
- 591)	13	01 - 02 - 07	eP	Very small.
- 592)		✓ 03 - 54 - 36	iP	Distant.
- 593)		22 - 03 - 42 09 - 25	iP } iS }	Distant. $\Delta = 3920$ Km. = 35.3° .
- 594)	14	02 - 33 - 46	eP	Distant.
- 595)		02 - 45 - 04 44	ePb } iSb }	Very small. $\Delta b = 355$ Km.
- 596)		12 - 34 - 45 53	ePg } iSg }	Very small. $\Delta g = 68$ Km.
- 597)		✓ 15 - 05 - 27 13 - 50	iP } iS }	Distant. $\Delta = 3735$ Km. = 60.6° .
- 598)	15	06 - 40 - 34	eP	Very small.
- 599)		07 - 29 - 24 44	ePb } iSb }	Very small. $\Delta b = 175$ Km.
- 600)		19 - 42 - 49 43 - 03	iPg } iSg }	Very small. $\Delta g = 114$ Km.
- 601)		✓ 20 - 04 - 19 11 - 15	iP } eS }	Distant. $\Delta = 5200$ Km. = 46.8° .
- 602)		✓ 22 - 32 - 47 22 - 44 - 35	iP } iScS }	Distant. $\Delta = 2000$ Km. = 18° .
- 603)	16	01 - 48 - 11 57 - 47	iP } eS }	Distant. $\Delta = 2135$ Km. = 19.2° .
- 604)		13 - 25 - 33 28 - 19	eP } iS }	Distant. $\Delta = 1565$ Km. = 14.1° .

August 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-605)		✓ 19 - 24 - 39	iP } iS }	Distant. $\Delta = 7300$ Km. = 65.7° . Iran quake.
		33 - 31		
-606)		21 - 34 - 30	ePb } iSb }	Very small. $\Delta b = 740$ Km. = 6.7° .
		35 - 53		
-607)		22 - 19 - 09	eP } iS }	Distant. $\Delta = 7500$ Km. = 13.5° .
		21 - 49		
-608)		22 - 27 - 21	iPb } iSb }	Distant. $\Delta b = 765$ Km. = 6.8° .
		28 - 47		
-609)	17	✓ 09 - 18 - 51	eP }	Very small.
-610)		✓ 18 - 07 - 35	iP } iS }	Distant. $\Delta = 3465$ Km. = 31.2° .
		12 - 49		
-611)		19 - 20 - 53	iP }	Very small.
-612)	18	07 - 34 - 03	ePb } iSb }	Very small. $\Delta b = 155$ Km.
		21		
-613)		12 - 45 - 16	ePb } iSb }	Very small. $\Delta b = 140$ Km.
		32		
-614)		12 - 47 - 47	iPg } iSg }	Very small. $\Delta g = 114$ Km.
		48 - 01		
-615)		12 - 53 - 12	ePb } iSb }	Very small. $\Delta b = 165$ Km.
		31		
-616)		13 - 29 - 47	iPb } iSb }	Very small. $\Delta b = 130$ Km.
		30 - 02		
-617)		14 - 11 - 13	ePb } iSb }	Very small. $\Delta b = 165$ Km.
		32		
-618)		14 - 15 - 12	ePb } iSb }	Very small. $\Delta b = 140$ Km.
		28		
-619)		19 - 58 - 54	ePb } eSb }	Very small. $\Delta b = 155$ Km.
		59 - 12		
-620)	19	00 - 02 - 02	ePg } iSg }	Very small. $\Delta g = 68$ Km.
		08		
-621)		14 - 22 - 05	eP }	Very small.
-622)		16 - 10 - 51	ePb } iSb }	Very small. $\Delta b = 190$ Km.
		11 - 13		
-623)		✓ 16 - 38 - 19	eP }	Very small.
-624)		✓ 21 - 53 - 53	iP } iS }	Distant. $\Delta = 4455$ Km. = 40.1° .
		22 - 00 - 08		
-625)	20	✓ 03 - 49 - 40	iP } iS }	Distant. $\Delta = 6020$ Km. = 54.2° .
		57 - 22		
-626)		✓ 08 - 48 - 00	iP } iS }	Distant. $\Delta = 3945$ Km. = 35.5° .
		53 - 44		
-627)	21	00 - 06 - 37	ePb } iSb }	Very small. $\Delta b = 175$ Km.
		57		
-628)		03 - 44 - 45	ePg } eSg }	Very small. $\Delta g = 110$ Km.
		58		

August 1958 ...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 629)	21	05 - 37 - 29	eP	Very small.
- 630)		12 - 01 - 57	ePb } iSb }	Very small. $\Delta b = 210$ Km.
- 631)	✓ 21	10 - 11	iP } iS }	Distant. $\Delta = 2355$ Km. = 21.2° .
- 632)	22	18 - 21 - 55	ePg } iSg }	Very small. $\Delta g = 114$ Km.
- 633)	✓ 22	23 - 44	iP	Distant.
x	23	No quakes recorded.		
- 634)	24	13 - 00 - 14	ePb } eSb }	Very small. $\Delta b = 255$ Km.
- 635)	✓ 16	55 - 10	iPb } iSb }	Small. $\Delta b = 265$ Km. Felt in Manila.
- 636)	25	09 - 24 - 20	iP	Very small.
- 637)	26	18 - 05 - 10	eP	Very small.
- 638)	✓ 23	41 - 01	iP	Very small.
- 639)	✓ 27	15 - 29 - 24 39 - 50	eP } iS }	Distant. $\Delta = 8980$ Km. = 80.8° .
- 640)	28	05 - 18 - 59	eP	Very small.
- 641)	29	08 - 07 - 32	ePb } iSb }	Very small. $\Delta b = 210$ Km.
- 642)		08 - 54 - 46	iP	Very small.
- 643)	✓ 12	33 - 59	iP } iS }	Distant. $\Delta = 6090$ Km. = 54.8° .
- 644)		41 - 45	iS }	
- 644)		13 - 01 - 33	iP	Very small.
- 645)	30	15 - 15 - 42	iP	Very small.
x 31		No quakes recorded.		

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Philippines

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MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. 16° 24' 39"

Long. E. 120° 34' 47"

Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u>	
		<u>Seism.</u>	<u>Galv.</u>	<u>Synchronous</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa	3367
	E-W	10.90 "	11.70 "		2000
	N-S	1.84 "	1.67 "		2451
Photoelectric	N-S	11.80 "	12.00 "		1000
	E-W	1.54 "	1.49 "		3000

SEPTEMBER 1958

<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
646)	1 00 - 45 - 44	ePg	Very small. $\Delta g = 35$ Km.
	48	eSg	
647)	03 - 31 - 22	iPg	Very small. $\Delta g = 85$ Km.
	32	eSg	
648)	03 - 39 - 34	iPb	Very small. $\Delta b = 140$ Km.
	50	eSb	
649)	03 - 50 - 16	aPb	Very small. $\Delta b = 230$ Km.
	42	iSb	
650)	10 - 22 - 04	ePb	Very small. $\Delta b = 155$ Km.
	22	eSb	
651)	12 - 36 - 00	iPb	Very small. $\Delta b = 140$ Km.
	16	iSb	
652)	13 - 00 - 34	iPb	Very small. $\Delta b = 140$ Km.
	50	iSb	
653)	✓ 15 - 34 - 20	iP	Distant.
654)	2 ✓ 02 - 32 - 02	ePg	Very small. $\Delta g = 114$ Km.
	16	iSg	
655)	08 - 21 - 42	ePb	Very small. $\Delta b = 140$ Km.
	58	eSb	
656)	09 - 21 - 06	ePb	Very small. $\Delta b = 140$ Km.
	22	iSb	
657)	11 - 00 - 44	ePb	Very small. $\Delta b = 140$ Km.
	01 - 00	iSb	
658)	11 - 19 - 48	iPb	Very small. $\Delta b = 148$ Km.
	20 - 05	iSb	
659)	11 - 23 - 55	iPg	Very small. $\Delta g = 75$ Km.
	24 - 04	eSg	
660)	12 - 15 - 45	ePg	Very small. $\Delta g = 58$ Km.
	52	iSg	

September 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 661)	3	15 - 05 - 38 54	iPb } iSb }	Very small. $\Delta b = 140$ Km.
- 662)	4	08 - 15 - 42 22 - 20 - 00	eP eP	Very small. Teleseismic.
< 5		No quakes recorded.		
< 6		No quakes recorded.		
- 664)	7	15 - 34 - 48 56	ePg } eSg }	Very small. $\Delta g = 68$ Km.
- 665)	8	✓ 05 - 34 - 13	iP	Distant.
- 666)	9	08 - 44 - 12 18	ePg } iSg }	Very small. $\Delta g = 50$ Km.
- 667)		✓ 11 - 39 - 38	iP	Very small.
- 668)		16 - 04 - 55 05 - 07	ePg } iSg }	Very small. $\Delta g = 100$ Km.
- 669)	10	07 - 10 - 16 27	iPg } iSg }	Very small. $\Delta g = 93$ Km.
- 670)		09 - 54 - 28 54	iPb } iSb }	Very small. $\Delta b = 230$ Km.
- 671)		19 - 10 - 42	eP	Very small.
- 672)	11	09 - 38 - 28	iP	Very small.
- 673)		✓ 18 - 04 - 32 06 - 34	iP } iS }	Small. $\Delta = 1090$ Km. = 9.8° . Felt at Surigao Int. IV, Mambajao Int. III, Davao Int. II.
- 674)	12	12 - 31 - 10	iP	Very small.
- 675)	13	03 - 35 - 57 36 - 07	iPg } iSg }	Very small. $\Delta g = 85$ Km.
- 676)	14	03 - 01 - 07 37	iPb } eSb }	Very small. $\Delta b = 265$ Km.
- 677)		03 - 47 - 43 56	iPg } iSg }	Very small. $\Delta g = 110$ Km.
- 678)		✓ 14 - 29 - 17 35 - 24	iP } iS }	Distant. $\Delta = 4310$ Km. = 38.8° .
- 679)		✓ 21 - 41 - 45 58	iPg } eSg }	Very small. $\Delta g = 110$ Km.
- 680)	15	19 - 48 - 45 51 31 - 04 59 - 28	iP } iS } iScS }	Moderate. $\Delta = 1290$ Km. = 11.6° .

September 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 681)	16	04 - 46 - 38	iP	Very small.
- 682)		07 - 23 - 48	ePb	Distant. $\Delta = 875$ Km. = 7.8° . Felt at Iloilo Int. III, Roxas City Int. III.
		25 - 26	iSb	
- 683)		21 - 41 - 18	iPg	Small local quake. $\Delta g = 100$ Km. Felt in Baguio Int. I.
		30	eSg	
- 684)	17	08 - 07 - 52	ePb	Very small. $\Delta b = 155$ Km.
		08 - 10	iSb	
- 685)		17 - 35 - 25	ePg	Very small. $\Delta g = 114$ Km.
		39	iSg	
- 686)		19 - 22 - 29	iPg	Small. $\Delta g = 114$ Km.
		43	iSg	
- 687)		20 - 32 - 23	ePb	Very small. $\Delta b = 310$ Km.
		58	iSb	
- 688)	18	15 - 02 - 00	eP	Teleseismic.
- 689)		15 - 22 - 27	eP	Distant.
- 690)		18 - 52 - 37	ePg	Very small. $\Delta g = 85$ Km.
		47	iSg	
- 691)	19	07 - 47 - 57	ePg	Very small. $\Delta g = 75$ Km.
		48 - 06	iSg	
- 692)		08 - 16 - 12	iP	Distant. $\Delta = 1765$ Km. = 15.9° .
		19 - 17	iS	
		28 - 31	ePcS	
- 693)	20	03 - 04 - 16	ePg	Very small. $\Delta g = 93$ Km.
		27	iSg	
- 694)		05 - 21 - 04	eP	Distant. $\Delta = 1890$ Km. = 17.0° .
		24 - 20	eS	
- 695)		16 - 03 - 31	eP	Very small.
- 696)		17 - 17 - 11	iP	Distant. $\Delta = 4320$ Km. = 38.9° .
		23 - 19	iS	
- 697)		19 - 44 - 01	ePb	Very small. $\Delta b = 140$ Km.
		17	iSb	
- 698)	21	05 - 51 - 11	eP	Teleseismic.
- 699)		07 - 01 - 35	ePg	Very small. $\Delta g = 114$ Km.
		49	iSg	
- 700)		07 - 35 - 01	eP	Very small.
- 701)		08 - 32 - 23	eP	Very small.
- 702)	22	08 - 41 - 39	eP	Distant. $\Delta = 2120$ Km. = 19.1° .
		45 - 14	iS	
		50 - 39	eScS	
- 703)		19 - 17 - 37	iP	Distant. $\Delta = 8245$ Km. = 74.2° .
		27 - 15	eS	

September 1958...

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 704)	23	08 - 50 - 32	ePb	} Very small. $\Delta b = 220$ Km.
		57	iSb	
- 705)		17 - 07 - 55	iPb	} Small. $\Delta b = 175$ Km.
		08 - 15	iSb	
- 706)		18 - 13 - 19	ePg	} Very small. $\Delta g = 93$ Km.
		30	iSg	
- 707)	24	03 - 50 - 49	iPg	} Very small. $\Delta g = 85$ Km.
		59	iSg	
- 708)	25	04 - 11 - 38	eP	Very small.
- 709)		✓ 07 - 39 - 58	iP	Distant.
- 710)		15 - 47 - 08	iPb	} Small. $\Delta b = 190$ Km. Felt at Vigan Int. II.
		30	eSb	
✕	26	No quakes recorded.		
- 711)	27	04 - 42 - 35	ePb	} Very small. $\Delta b = 210$ Km.
		59	eSb	
- 712)		05 - 51 - 29	iP	Very small.
✕	28	No quakes recorded.		
- 713)	29	02 - 52 - 43	ePb	} Very small. $\Delta b = 190$ Km.
		53 - 05	iSb	
- 714)		06 - 03 - 55	ePb	} Very small. $\Delta b = 230$ Km.
		04 - 21	eSb	
- 715)		09 - 58 - 39	eP	} Distant. $\Delta = 2535$ Km. = 22.8° .
		10 - 02 - 48	iS	
- 716)		13 - 34 - 17	eP	Very small local quake. Felt in Baguio Int. I.
- 717)	30	02 - 31 - 44	ePb	} Very small. $\Delta b = 185$ Km.
		32 - 05	iSb	
- 718)		✓ 07 - 12 - 21	eP	} Distant. $\Delta = 1600$ Km. = 16.2° .
		15 - 29	iS	
- 719)		14 - 54 - 29	iPg	} Very small. $\Delta g = 100$ Km.
		41	eSg	

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 Mirador, Baguio City
 Philippines

MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. $16^{\circ} 24' 39''$

Long. E $120^{\circ} 34' 47''$

Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u> <u>Synchronous</u>
		<u>Seism.</u>	<u>Galv.</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa 3367
	E-W	10.90 "	11.70 "	2000
	N-S	1.84 "	1.67 "	2451
Photoelectric	N-S	11.80 "	12.00 "	1000
	E-W	1.54 "	1.49 "	3000
Visual recording				

OCTOBER 1958

<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 720)	1	04 - 25 - 32	eP
- 721)		04 - 27 - 31	eP
- 722)		05 - 21 - 51	ePb
		22 - 25	iSb
- 723)	✓	09 - 42 - 00	eP
- 724)		12 - 03 - 36	eP
- 725)	✓	17 - 58 - 12	eP
- 726)	2	09 - 33 - 42	ePb
		58	iSb
- 727)		10 - 14 - 58	ePb
		15 - 18	iSb
- 728)	✓	15 - 03 - 29	eP
		05 - 49	iS
- 729)	3	✓ 00 - 34 - 02	iPb
		33	iSb
- 730)		14 - 59 - 14	iPb
		15 - 00 - 43	iSb
- 731)	✓ 4	11 - 38 - 34	eP
	5	No quakes recorded.	

October 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 732)	6	00 - 23 - 54	ePb	} Very small. $\Delta b = 310$ Km.
		24 - 29	iSb	
- 733)	✓ 6	19 - 01 - 47	eP	Very small.
- 734)		20 - 54 - 03	eP	Very small.
- 735)	7	09 - 10 - 39	ePg	} Very small. $\Delta g = 68$ Km.
		47	iSg	
- 736)	✓ 7	12 - 40 - 03	iP	} Distant. $\Delta = 3945$ Km. = 35.5° .
		45 - 47	iS	
- 737)	✓ 8	14 - 09 - 43	iP	Very small.
- 738)	9	09 - 19 - 39	eP	} Distant. Felt at Daet, Int. IV.
		24 - 40	ePcP	
- 739)		12 - 16 - 43	ePb	} Very small. $\Delta b = 318$ Km.
		17 - 19	iSb	
- 740)	10	03 - 42 - 13	ePb	} Very small. $\Delta b = 355$ Km.
		53	iSb	
- 741)		04 - 08 - 29	iP	} Distant. $\Delta = 1545$ Km. = 13.9° .
		11 - 13	iS	
- 742)		06 - 22 - 45	iP	Very small.
- 743)	✓ 10	08 - 39 - 01	iPg	} Very small. $\Delta g = 85$ Km.
		11	iSg	
- 744)		11 - 38 - 37	eP	} Distant. $\Delta = 940$ Km. = 8.5° .
		40 - 23	iS	
× 11		No quakes recorded.		
- 745)	12	✓ 15 - 21 - 38	iP	} Distant. $\Delta = 1245$ Km. = 11.2° .
		23 - 54	iS	
		33 - 44	iScP	
- 746)	13	19 - 14 - 53	iPb	} Small. $\Delta b = 190$ Km.
		15 - 15	iSb	
× 14		No quakes recorded.		
- 747)	15	09 - 11 - 34	ePg	} Very small. $\Delta g = 114$ Km.
		48	iSg	
- 748)		18 - 46 - 18	ePb	} Very small. $\Delta b = 525$ Km. = 4.7° .
		47 - 17	eSb	
- 749)	16	01 - 15 - 42	ePb	} Distant. $\Delta b = 535$ Km. = 4.8° .
		16 - 42	iSb	

October 1958...

- 3 -

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 750)	16	06 - 56 - 29	ePb	} Very small. $\Delta b = 380$ Km.
		57 - 12	iSb	
- 751)	✓ 16	15 - 29 - 57	iP	Very small.
- 752)		18 - 11 - 14	iP	Very small.
- 753)		21 - 48 - 19	ePg	} Very small. $\Delta g = 114$ Km.
		33	iSg	
- 754)	17	04 - 34 - 20	iP	Small local quake. Int. II in Baguio. Operated starting pendulum of strong motion seismograph. No record made.
- 755)	18	07 - 19 - 20	iPg	} Very small. $\Delta g = 100$ Km.
		32	iSg	
- 756)		07 - 37 - 34	iP	Very small.
- 757)	19	00 - 29 - 37	iPg	} Very small. $\Delta g = 50$ Km.
		43	iSg	
- 758)		03 - 27 - 08	eP	Very small.
- 759)	✓ 20	01 - 18 - 13	iP	} Distant. $\Delta = 2790$ Km. = 25.2° .
		22 - 41	iS	
		27 - 31	eScS	
- 760)		05 - 37 - 23	ePb	} Very small. $\Delta b = 190$ Km.
		45	iSb	
- 761)		07 - 53 - 19	ePb	} Very small. $\Delta b = 290$ Km.
		52	iSb	
- 762)	21	06 - 21 - 41	iPb	} Very small. $\Delta b = 325$ Km.
		22 - 18	iSb	
- 763)		07 - 14 - 56	ePb	} Very small. $\Delta b = 235$ Km.
		15 - 23	iSb	
- 764)		14 - 15 - 20	iPb	} Very small. $\Delta b = 750$ Km. = 6.8° .
		16 - 44	iSb	
x	22	No quakes recorded.		
- 765)	23	18 - 40 - 10	ePb	} Very small. $\Delta b = 190$ Km.
		32	eSb	
- 766)	24	21 - 17 - 13	eP	} Very small.
- 767)		22 - 36 - 17	ePb	
		44	eSb	
x	25	No quakes recorded.		
- 768)	26	02 - 20 - 28	iP	} Distant. $\Delta = 2200$ Km. = 19.8° .
		24 - 10	eS	

October 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 769)	27	17 - 20 - 28 21 - 12	eP } iS }	Very small. $\Delta b = 390$ Km.
✓ - 770)	28	10 - 53 - 32	eP	Distant.
✓ - 771)	29	07 - 54 - 01	iP	Very small.
- 772)		14 - 00 - 28	iP	Very small. Felt in Manila, Int. II.
- 773)	30	02 - 04 - 46 05 - 08	ePb } eSb }	Very small. $\Delta b = 190$ Km.
- 774)		06 - 41 - 30 56	ePb } eSb }	Very small. $\Delta b = 230$ Km.
- 775)		17 - 29 - 52 30 - 08	iPb } iSb }	Very small. $\Delta b = 140$ Km.
- 776)	31	03 - 16 - 36 46	ePg } iSg }	Very small. $\Delta g = 85$ Km.
- 777)		10 - 29 - 38 30 - 06	ePb } iSb }	Very small. $\Delta b = 245$ Km.
- 778)		20 - 14 - 00 05	ePg } iSg }	Very small. $\Delta g = 40$ Km.
✓ - 779)		23 - 41 - 31 43 - 01	ePb } iSb }	Small. $\Delta b = 800$ Km. = 7.2^0 .

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G. J. W. 11/11

MANILA OBSERVATORY
Mirador, Baguio City
Philippines

MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. 16° 24' 39" Long. E 120° 34' 47" Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u> <u>Synchronous</u>
		<u>Seism.</u>	<u>Galv.</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa 3367
	E-W	10.90 "	11.70 "	2000
	N-S	1.84 "	1.67 "	2451
Photoelectric	N-S	11.80 "	12.00 "	1000
	Visual recording	E-W	1.54 "	1.49 "

NOVEMBER 1958

<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 780)	1	03 - 45 - 37	ip } Distant. $\Delta = 3820$ Km. = 34.4° .
		51 - 13	
- 781)		12 - 16 - 48	eS } Very small. $\Delta_g = 50$ Km.
		54	
- 782)		12 - 25 - 40	eP } Very small.
- 783)		15 - 12 - 31	
		44	ePg } Very small. $\Delta_g = 110$ Km.
- 784)	2	19 - 36 - 17	ePb } Very small. $\Delta_b = 283$ Km.
		49	
*3		No quakes recorded.	
*4		Time marks missing. Distant quake S-P, 2 min. 28 sec. ($\Delta = 1380$ Km. = 12.4°) about 16h 25 m. 2 very small quakes during period 16h to 22 h GMT.	
*5		No quakes recorded.	
- 785)	6	15 - 35 - 01	eP } Very small.
- 786)		15 - 38 - 47	
- 787)		23 - 05 - 13	ip } Distant. $\Delta = 3780$ Km. = 34.0° .
		10 - 46	

November 1958...

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-788)	7	✓ 01 - 50 - 11	eP	Very small.
-789)		✓ 02 - 02 - 49	ePb	} Very small. $\Delta b = 230$ Km.
		✓ 03 - 15	iSb	
-790)		✓ 02 - 58 - 01	ePb	
		29	eSb	} Very small. $\Delta b = 255$ Km.
-791)		✓ 05 - 07 - 05	iPg	
		19	iSg	} Very small. $\Delta g = 114$ Km.
-792)		✓ 07 - 47 - 52	ePb	
		48 - 13	eSb	} Very small. $\Delta b = 185$ Km.
-793)		✓ 11 - 31 - 31	ePb	
		53	eSb	} Very small. $\Delta b = 190$ Km.
-794)		✓ 17 - 39 - 47	ePb	
		40 - 14	eSb	} Very small. $\Delta b = 235$ Km.
-795)		✓ 19 - 21 - 51	eP	
-796)		✓ 20 - 04 - 01	ePg	} Very small. $\Delta g = 68$ Km.
		09	eSg	
-797)		20 - 04 - 05	ePg	} Very small. $\Delta g = 68$ Km.
		13	eSg	
-798)	✓ 8	09 - 31 - 26	iP	Distant.
-799)	9	14 - 53 - 00	eP	Teleseismic.
-800)		17 - 59 - 59	eP	Very small.
*	10	No quakes recorded.		
-801)	11	19 - 00 - 13	ePb	} Very small. $\Delta b = 155$ Km.
		31	iSb	
-802)	12	03 - 59 - 11	ePb	} Small. $\Delta b = 300$ Km. Felt at Calayan Int. IV; Felt at Aparri Int. III.
		45	iSb	
-803)		10 - 47 - 29	eP	Teleseismic.
-804)		14 - 14 - 29	ePg	} Very small. $\Delta g = 75$ Km.
		22	iSg	
-805)		15 - 18 - 15	ePb	} Very small. $\Delta b = 710$ Km. = 6.4° .
		19 - 35	iSb	
-806)		20 - 30 - 37	iP	} Distant. $\Delta = 3880$ Km. = 34.9° .
		36 - 17	iS	
-807)		✓ 23 - 06 - 53	ePb	} Very small. $\Delta b = 245$ Km.
		07 - 21	eSb	
-808)	13	00 - 30 - 03	iPb	} Small. $\Delta b = 190$ Km. Felt at Baler Int. III.
		30 - 25	iSb	
-809)		01 - 07 - 11	iPb	} Very small. $\Delta b = 175$ Km.
		31	eSb	
-810)	✓	04 - 11 - 44	iPg	} Very small. $\Delta g = 110$ Km.
		57	iSg	
-811)		05 - 25 - 57	iPb	} Small. $\Delta b = 190$ Km.
		26 - 19	iSb	

November 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
812)	14	03 - 26 - 05	eP	Very small.
813)		✓ 05 - 42 - 03	iP	Distant.
814)		09 - 08 - 31	ePg	Very small. $\Delta g = 100$ Km.
		43	eSg	
-815)		✓ 13 - 53 - 48	iP	Distant. $\Delta = 2600$ Km. = 23.4° .
		58 - 02	iS	
-816)		23 - 39 - 28	iPb	Very small. $\Delta b = 265$ Km.
		58	iSb	
-817)	15	01 - 38 - 22	iPb	Very small. $\Delta b = 190$ Km.
		44	iSb	
-818)		✓ 05 - 55 - 26	iP	Very small.
-819)		✓ 09 - 07 - 56	eP	Distant. $\Delta = 4300$ Km. = 38.7° .
		14 - 02	iS	
-820)		✓ 16 - 51 - 44	ePb	Very small. $\Delta b = 362$ Km.
		52 - 25	iSb	
	× 16	No quakes recorded.		
-821)	17	06 - 35 - 14	iPg	Very small. $\Delta g = 100$ Km.
		26	eSg	
-822)		✓ 09 - 54 - 58	iP	Very small.
-823)		16 - 18 - 24	iPb	Very small. $\Delta b = 515$ Km. = 4.6° .
		19 - 22	iSb	
-824)	18	03 - 37 - 26	iPb	Very small. $\Delta b = 245$ Km.
		54	iSb	
-825)	19	05 - 39 - 17	ePb	Very small. $\Delta b = 335$ Km.
		55	iSb	
-826)		05 - 56 - 24	ePb	Very small. $\Delta b = 155$ Km.
		57 - 42	eSb	
-827)		09 - 30 - 57	iPg	Very small. $\Delta g = 100$ Km.
		31 - 09	eSg	
-828)		10 - 56 - 45	ePg	Very small. $\Delta g = 35$ Km.
		49	iSg	
-829)		21 - 53 - 56	iPg	Very small. $\Delta g = 114$ Km. Felt in Baguio, Int. II.
		54 - 10	eSg	
-830)	20	14 - 13 - 23	eP	Very small.
-831)		14 - 25 - 15	eP	Very small.
	× 21	No quakes recorded.		
832)	✓ 22	00 - 10 - 14	ePb	Very small. $\Delta b = 140$ Km.
		30	iSb	
833)	✓	02 - 02 - 11	iP	Distant. $\Delta = 2565$ Km. = 23.1° .
		06 - 22	iS	

November 1958...

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
- 834)	22	06 - 56 - 28 07 - 01 - 04	iP iS	} Distant. $\Delta = 2900 \text{ Km.} = 26.1^\circ$.
- 835)	23	20 - 51 - 14 26	ePg iSg	} Very small. $\Delta g = 100 \text{ Km.}$
- 836)		21 - 52 - 14 36	ePb eSb	} Very small. $\Delta b = 190 \text{ Km.}$
x	24	No quakes recorded.		
- 837)	25	13 - 20 - 36	eP	} Very small. Very small. $\Delta g = 100 \text{ Km.}$
- 838)		18 - 57 - 52 58 - 04	ePg iSg	
x	26	No quakes recorded.		
- 839)	27	17 - 44 - 24 26	ePb iSb	} Very small. $\Delta b = 283 \text{ Km.}$
x	28	No quakes recorded.		
x	29	No quakes recorded.		
- 840)	30	01 - 38 - 10 42 - 28	eP iS	} Distant. $\Delta = 2645 \text{ Km.} = 23.8^\circ$.
- 841)		23 - 10 - 40 11 - 44	ePb iSb	} Very small. $\Delta b = 570 \text{ Km.} = 5.1^\circ$.

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MANILA OBSERVATORY
Mirador, Baguio City
Philippines

MONTHLY SEISMOLOGICAL BULLETIN

Lat. N. $16^{\circ} 24' 39''$

Long. E $120^{\circ} 34' 47''$

Alt. 1507 meters

Instruments (All Sprengnethers)

Hard Limestone Bedrock

<u>Type</u>	<u>Component</u>	<u>Period</u>		<u>Magnification (Dynamic)</u> <u>Synchronous</u>
		<u>Seism.</u>	<u>Galv.</u>	
Photographic	Z	1.41 sec	1.37 sec	Circa 3367
	E-W	10.90 "	11.70 "	
	N-S	1.84 "	1.67 "	
Photoelectric	N-S	11.80 "	12.00 "	2451
	E-W	1.54 "	1.49 "	1000
Visual recording				3000

DECEMBER 1958

<u>Date</u>	<u>Time (GMP)</u>	<u>Phase</u>	<u>Remarks</u>
- 842)	1	07 - 24 - 52 25 - 00	ePg } iSg } Very small. $\Delta g = 68$ Km.
x 2	No quakes recorded.		
- 843)	3	09 - 49 - 15 47	iPb } iSb } Small. $\Delta b = 283$ Km. Felt at Aparri, Int. III; Tuguegarao, Int. III; Villaviciosa, Abra, Int. I.
- 844)		16 - 04 - 59 05 - 23	ePb } iSb } Very small. $\Delta b = 210$ Km.
- 845)	4	16 - 37 - 35 41	iPg } iSg } Very small. $\Delta g = 50$ Km.
- 846)	5	23 - 34 - 21 51	ePb } iSb } Very small. $\Delta b = 265$ Km.
- 847)	6	20 - 11 - 53 12 - 39	ePb } iSb } Very small. $\Delta b = 405$ Km.
- 848)	7	01 - 08 - 43 11 - 49	eP } iS } Distant. $\Delta = 1780$ Km. = 16.0° .
- 849)		01 - 45 - 07 47 - 49	eP } eS } Distant. $\Delta = 1520$ Km. = 13.7° .
- 850)		02 - 49 - 21 51 - 05	iPb } iSb } Distant. $\Delta b = 925$ Km. = 8.3° .
- 851)		04 - 58 - 43 59 - 43	ePb } iSb } Very small. $\Delta b = 535$ Km. = 4.9° .
- 852)		08 - 52 - 29 53 - 31	ePb } iSb } Very small. $\Delta b = 545$ Km. = 4.9° .

December 1958...

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	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-853)	8	06 - 03 - 32	ePb	} Very small. $\Delta b = 190$ Km.
		54	iSb	
-854)		12 - 15 - 36	iPb	} Very small. $\Delta b = 210$ Km.
		16 - 00	iSb	
-855)		13 - 50 - 28	iPg	} Very small. $\Delta g = 114$ Km.
		42	iSg	
-856)		22 - 50 - 16	iPg	} Very small. $\Delta g = 114$ Km. Felt at Villaviciosa, Abra Prov., Int. I.
		30	iSg	
-857)	9	05 - 58 - 54	ePb	} Very small. $\Delta b = 530$ Km. = 5.7° .
		06 - 00 - 05	iSb	
-858)		16 - 06 - 16	ePg	} Very small. $\Delta g = 93$ Km.
		25	iSg	
-859)		23 - 45 - 34	eP	} Very small.
-860)	10	07 - 14 - 13	iP	} Distant. $\Delta = 7765$ Km. = 69.9° .
		23 - 27	iS	
-861)		14 - 42 - 00	eP	} Very small.
* 11		No quakes recorded.		
-862)	12	02 - 03 - 08	ePb	} Very small. $\Delta b = 283$ Km.
		40	iSb	
-863)		05 - 52 - 32	ePb	} Very small. $\Delta b = 245$ Km.
		53 - 00	iSb	
-864)	13	13 - 51 - 49	eP	} Very small.
-865)	14	19 - 46 - 34	ePb	} Very small. $\Delta b = 190$ Km.
		56	iSb	
-866)		21 - 12 - 08	iP	} Very small.
* 15		No quakes recorded.		
-867)	16	08 - 47 - 48	ePb	} Very small. $\Delta b = 190$ Km.
		48 - 10	eSb	
-868)		21 - 36 - 00	eP	} Very small. Felt at Iloilo, Int I.
-869)	17	15 - 37 - 38	eP	} Distant.
-870)		20 - 41 - 14	iPb	
		42	eSb	
-871)	18	07 - 26 - 48	iPb	} Small. $\Delta b = 190$ Km. Felt in Baguio, Int. I. Operated starting pendulum of strong motion seismograph. No record made. Felt at Laoag, Int. III.
		27 - 10	iSb	
-872)		07 - 46 - 08	ePg	} Very small. $\Delta g = 110$ Km.
		21	iSg	
-873)		09 - 50 - 45	iPb	} Very small. $\Delta b = 140$ Km.
		51 - 01	eSb	

December 1958...

- 3 -

	<u>Date</u>	<u>Time (GMT)</u>	<u>Phase</u>	<u>Remarks</u>
-874)	19	08 - 46 - 21	ePb	} Very small. $\Delta b = 445$ Km.
		47 - 11	iSb	
-875)		23 - 58 - 52	ePb	} Very small. $\Delta b = 710$ Km. = 6.4° .
		00 - 00 - 12	iSb	
-876)	20	09 - 32 - 02	iP	Very small.
-877)		09 - 33 - 42	iP	Very small.
-878)		14 - 27 - 22	ePb	} Very small. $\Delta b = 283$ Km.
		54	iSb	
-879)	✓	19 - 24 - 05	eP	} Distant. $\Delta = 1645$ Km. = 14.8° .
		26 - 58	iS	
-880)	21	00 - 26 - 08	ePb	} Very small. $\Delta b = 165$ Km.
		27	iSb	
-881)	✓	05 - 54 - 40	eP	Distant.
-882)		21 - 09 - 05	ePb	} Very small. $\Delta b = 175$ Km.
		25	eSb	
x	22	No quakes recorded.		
-883)	23	06 - 16 - 30	eP	Very small.
-884)	24	10 - 42 - 52	iPb	} Very small. $\Delta b = 175$ Km.
		43 - 12	iSb	
-885)	25	08 - 12 - 52	iP	} Distant. $\Delta = 3945$ Km. = 35.5° .
	✓	18 - 36	iS	
-886)	✓	18 - 58 - 25	ePg	} Very small. $\Delta g = 58$ Km.
		32	iSg	
-887)	✓	06 - 01 - 24	iP	Very small.
-888)		16 - 00 - 56	ePg	} Very small. $\Delta g = 35$ Km.
		01 - 00	iSg	
x	27	No quakes recorded.		
-889)	28	06 - 52 - 40	eP	Very small.
-890)	✓	22 - 43 - 58	eP	} Distant. $\Delta = 2580$ Km. = 23.2° .
		48 - 10	iS	
-891)	30	00 - 29 - 04	iPg	} Very small. $\Delta g = 100$ Km.
		16	eSg	
-892)		11 - 45 - 22	ePg	} Very small. $\Delta g = 114$ Km.
		36	iSg	
-893)		21 - 33 - 20	eP	Very small.
-894)	✓	01 - 56 - 34	eP	Very small.
-895)	✓	10 - 38 - 48	eP	Very small.

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