

PANAMA CANAL COMPANY
 Engineering and Construction Bureau
 Meteorological and Hydrographic Branch

Lat. 8° 57' 39" N
 Long. 79° 33' 29" W

Balboa Heights, Canal Zone

h: 36 meters

SEISMOLOGICAL BULLETIN - JANUARY 1962

----- Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e) -----

No.	Date	Phase	Comp.	Time G.C.T.	Epicentral Distance (Miles)	Remarks
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Standard seismograph system USC&GS placed in operation as of 1 January 1962

1	20	iP iS	ALL	07-24-59 25-29		
2	20	eP	ALL	10-28-40		
3	25	iP iS	zne	23-53-01D 53-15		
4	29	iP iS	zne ne	01-09-24D 10-02		
5	30	iP iS	ALL N	08-36-29C 38-56		

USCGS: 12.7 N 87.7 W
 Near Coast of Nicaragua

W. H. Esslinger
 W. H. Esslinger
 Chief Hydrographer

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SEISMOLOGICAL BULLETIN - FEBRUARY 1962

Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e)

No.	Date	Phase	Comp.	Time G.C.T.	Epicentral Distance (Miles)	Remarks
1	2	iP iS	zne ne	17-11-53C 12-02		
2	3	eP	zZ	00-57-04C		USCGS: 1.2 S 137.8 E North of New Guinea
3	3	iP iS	zne ne	21-39-34D 41-46		USCGS: 6.5 N 73.1 W Colombia
4	4	iP	z	17-48-09D		
5	4	iP	z	20-41-19C		USCGS: 2.8 N 83.2 W Off Coast of Ecuador
6	4	iP	z	21-35-25C		USCGS: 0.5 S 20.2 W South Atlantic Ocean
7	4	eP	z	21-39-23C		
8	8	iP eS	zZ NE	08-30-33D 32-44		
9	8	iP iS	zne ne	18-11-18C 11-54		
10	9	iP iS	zne ne	13-01-01.5C 01-05	19	
11	10	iP	Z	19-35-56D		USCGS: 17.9 N 62.2 W Leeward Islands
12	11	iP	Z	19-16-30D		
13	14	iP iS	ZNE NE	06-44-14C 51-08	3,500	USCGS: 38.1 S 73.1 W Near Coast of Chile, moderate property damage in Central Chile

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SEISMOLOGICAL BULLETIN - FEBRUARY 1962

----- Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e) -----

No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
14	16	iP	zne	03-28-09C	90	
		iS	ne	28-15		
15	18	iP	ZNE	17-26-08C	345	USCGS: 8.1 N 74.6 W Northern Colombia Felt in Bogota and Medellin
		iS	NE	26-54		

From February 16, 1962 to February 27, 1962, time correction uncertain

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SEISMOLOGICAL BULLETIN - MARCH 1962

Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e)

No.	Date	Phase	Comp.	Time G.C.T.	Epicentral Distance (Miles)	Remarks
1	2	eP	Z	13-22-48C		USCGS: 5.4 N 126.5 E Off South Coast of Mindanao, P.I.
2	3	iP iS	Z ne	12-34-33D 34-38		
3	5	iP iS	z ne	23-30-25C 30-57		
4	6	iP iS	z ne	23-39-30D 40-12		
5	7	eP iS	z ne	11-18-40 18-57		
6	11	iP	ALL	19-38-48D		USCGS: 9.0 N 126.7 E Near East Coast of Mindanao, P.I.
7	12	iP	ALL	09-42-26D		USCGS: 9.0 N 83.0 W Costa Rica Felt Force IV, Balboa Heights Felt strongly, El Volcan, R. de P. Damaged buildings in Puerto Armuelles and David, R. de P.
8	12	iP	ALL	11-41-05D		USCGS: 8.1 N 83.0 W Near South Coasts of Panama and Costa Rica Felt Force V, Balboa Heights Felt strongly, El Volcan R. de P. Aftershock caused damage, Puerto Armuelles and David, R. de P.
9	12	iP	Z	14-01-24		
10	12	iP	Z	14-06-45		

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SEISMOLOGICAL BULLETIN - MARCH 1962

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No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
11	12	iP	Z	14-40-34		
12	12	iP	Z	14-46-37		
13	12	iP	Z	16-19-10		
14	12	iP	Z	16-24-06		
15	12	iP	Z	16-40-23		
16	12	iP	Z	17-00-37		
17	12	iP	Z	17-25-49		
18	12	iP	Z	17-41-47		
19	12	iP	Z	18-54-34		
20	12	iP	Z	19-00-34		
21	12	iP	Z	19-47-57		
22	12	iP	Z	19-52-37		
23	12	iP	Z	20-06-11		
24	12	iP	Z	20-14-22		
25	12	iP	Z	20-32-26		
26	12	iP	Z	20-57-51		
27	12	iP	Z	22-39-43		
28	13	iP	Z	04-14-53		
29	13	iP	Z	04-27-25		
30	13	iP	Z	05-41-05		

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No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
31	13	iP	Z	06-13-10		
32	13	iP	Z	09-14-45		
33	13	iP	z	13-54-42C	240	
		iS	ne	55-26		
34	14	iP	z	03-05-22	240	
		iS	ne	06-12		
35	14	iP	z	14-57-24		
36	14	iP	z	19-53-36		
37	14	iP	z	20-21-10D	240	
		iS	ne	21-58		
38	15	iP	z	09-52-20		
39	15	iP	z	15-40-55D	240	
		iS	ne	41-42		
40	17	iP	z	10-39-40		
		iS	ne	40-19		
41	17	iP	Z	20-54-30C		USCGS: 10.6 N 43.7 W. North Atlantic Ocean
		iS	N	21-00-36		
42	19	iP	z	03-39-22C		
		iS	n	40-10		
43	19	iP	z	06-14-12C		
44	20	iP	z	04-58-02C		
		iS	n	58-48		
45	20	iP	z	11-01-27D		
		iS	n	02-11		
46	22	iP	z	15-32-28D		

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SEISMOLOGICAL BULLETIN - MARCH 1962

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No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
47	23	iP iS	z ne	06-53-52D 54-10		
48	23	iP iS	z ne	23-37-30C 38-20		
49	24	iP iS	z ne	19-08-02C 09-39		
50	25	iP iS	z ne	04-33-21C 34-12		
51	25	iP iS	z n	05-32-24C 33-03		
52	25	iP iS	z ne	15-30-25.5C 31-39.5	USCGS: 6.8 N 73.1 W	Northern Colombia
53	26	eP i	z ne	03-25-19 25-59	USCGS: 0.5 S 127.6 E	Halimahera Region
54	26	iP i	z ne	15-31-42D 32-09	USCGS: 5.5 S 148.1 E	New Britain Region
55	26	iP	z	16-41-33D	USCGS: 40.6 S 73.3 W	Near Coast of Southern Chile
56	27	iP iS	z ne	09-22-53C 23-39		
57	29	iP iS	z ne	13-33-40C 34-37	USCGS: 5.4 N 81.9 W	South of Panama
58	30	iP iS	z ne	22-15-00G 16-08		

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SEISMOLOGICAL BULLETIN - APRIL 1962

Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e)

No.	Date	Phase	Comp.	Time G.C.T.	Epicentral Distance (Miles)	Remarks
1	18	iP iS	ZNE NE	19-18-56D 22-24	1,500	USCGS: 10.0 S 79.0 W Off Coast of Peru
2	20	iP iS	Z ne	05-51-06D 53-31.5	900	USCGS: 20.6 N 72.2 W Near North Coast of Haiti
3	22	iP iS	Z NE	04-48-47C 51-46	1,100	USCGS: 15.5 N 93.1 W Near Coast of Chiapas, Mexico
4	23	iP iS	Z NE	06-13-04C 27-31	8,000	USCGS: 42.9 N 143.4 E Hokkaido, Japan
5	27	iP	Z	06-56-46D		USCGS: 44.4 S 74.8 N Southern Chile
6	29	iP iS	z ne	04-52-28D 52-57	140	
7	29	iP iS	z ne	13-09-19C 09-56	175	
8	30	iP iS	z ne	07-50-25D 51-27	300	USCGS: 6.9 N 73.0 W Near Colombia-Venezuela Border

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SEISMOLOGICAL BULLETIN - MAY 1962

Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e)

No.	Date	Phase	Comp.	Time	Epicentral Distance		Remarks
				G.C.T.	(Miles)		
1	2	iP	zne	09-03-09C			USCGS: 33.6 S 65.9 W Jujuy Province, Argentina
2	3	iP i	z ne	03-13-06D 13-53	225		USCGS: 60.0 S 32.9 W Sandwich Islands, Aleutian Islands
3	4	iP iS	Z NE	23-10-25C 12-20	700		USCGS: 0.9 S 80.8 W Near Coast of Ecuador
4	6	iP iS	Z NE	19-12-09D 22-14	5,900		USCGS: 60.0 S 32.8 W Sandwich Islands Region
5	7	iP	Z	08-25-27			USCGS: 19.3 N 145.4 E Mariana Islands
6	7	iP	Z	17-54-33D			
7	11	iP iS	ALL NEne	14-16-37C 20-39	1,800		USCGS: 17.0 N 99.7 W Near Coast of Mexico
8	13	iP iS	z ne	09-14-10D 15-24	450		USCGS: 6.9 N 73.0 W Colombia
9	15	iP i	Z NE	05-23-34C 57-59			
10	19	iP iS	Z NE	15-02-57C 06-56	1,550		USCGS: 17.2 N 99.5 W Near Coast of Mexico
11	21	iP iS	Z NE	21-28-43C 38-42	5,900		USCGS: 20.0 S 177.5 W Fiji Islands Region
12	21	iP iS	z ne	22-06-56D 07-41	215		
13	28	iS	N	16-23-49			USCGS: 10.8 S 165.8 E Santa Cruz Islands

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SEISMOLOGICAL BULLETIN - JUNE 1962

Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e)

No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
1	2	iP iS	z ne	20-51-25C 51-57	155	
2	4	iP iS	ALL ne	18-51-08D 51-31	110	USCGS: 7.5 N 80.9 W South Coast of Panama Felt Force IV, Balboa Heights
3	18	iP	z	13-07-48D		
4	19	iP iS	z ne	01-00-15D 01-02	225	USCGS: 7.1 N 82.7 W South of Panama
5	20	iP iS	z ne	11-49-32D 49-55	110	
6	21	iP iS	z ne	04-44-50D 45-40	240	USCGS: 5.7 N 82.6 W South of Panama
7	21	iP	z	05-14-08		
8	22	iP iS	z ne	17-53-41D 54-22	195	Felt. El Volcan, R. de P.
9	23	iP	z	10-18-01C		USCGS: 25.7 N 128.5 E Ryukyu Islands
10	25	iP iS	z ne	00-18-56C 19-12	75	
11	25	iP iS	z ne	19-00-04D 01-14	335	USCGS: 14.5 N 82.4 W Off East Coast of Nicaragua

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SEISMOLOGICAL BULLETIN - JULY 1962

Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e)

No.	Date	Phase	Comp.	Time	Epicentral Distance (Miles)	Remarks
				G.C.T.		
1	10	iP	z	05-39-34	210	
		iS	ne	40-18		
2	11	iP	z	14-00-02D	370	USCGS: 6.5 N 73.2 W Colombia
		iS	ne	01-19		
3	11	iP	Z	22-56-55	3,510	
		iS	NE	23-04-13		
4	16	iP	z	03-00-38.5D	85	
		iS	ne	00-56.5		
5	16	iP	Z	04-53-54C	760	USCGS: 11.2 S 79.8 W Near Coast of Peru
		iS	NE	57-38		
6	17	i	E	04-17-32		USCGS: 11.6 N 87.1 W Off West Coast of Nicaragua
7	17	i	E	05-48-52		USCGS: 43.0 S 74.9 W Near Coast of Chile
8	19	iP	z	06-28-16C	240	
		iS	n	29-06		
9	23	eP	Z	01-14-33	640	USCGS: 10.7 N 86.5 W Off Coast of Costa Rica
		eS	NE	16-17		
10	24	iP	Z	21-11-35C		USCGS: 15.5 N 92.5 W Mexico-Guatemala Border Region
11	24	iP	z	22-40-06C	178	
		iS	ne	40-43		
12	25	iP	Z	04-40-11D	620	USCGS: 18.9 N 81.1 W West of Jamaica
		iS	NE	41-53		
13	26	iP	ZNE	08-15-36D		USCGS: 7.5 N 82.7 W South of Panama Felt Force V, Balboa Heights Felt El Volcan, R. de P.

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No.	Date	Phase	Comp.	Time	Epicentral Distance		Remarks
				G.C.T.	(Miles)		
14	26	iS	n	12-24-28			
15	26	iP	z	18-14-02	186		
		iS	n	14-41			
16	26	iP	z	18-59-41D	190		
		iS	n	19-00-21			
17	27	iS	n	00-18-52			
18	27	iS	n	00-46-23			
19	27	iP	z	08-47-54D	190		
		iS	n	48-34			
20	27	iP	z	14-08-02.5C	200		
		iS	n	08-44			
21	27	iP	z	22-00-10D	200		
		iS	n	00-53			
22	28	iP	z	16-19-31D	205		Felt El Volcan, R. de P.
		iS	n	20-14			
23	29	iP	z	03-08-03D	175		
		iS	n	08-39			
24	29	eP	z	13-48-32	125		
		iS	ne	48-48.5			
25	30	eP	z	01-37-52	225		
		iS	ne	38-39			
26	30	eP	z	01-55-31	220		
		iS	ne	56-17			
27	30	iP	z	17-36-08D			
28	30	iP	z	18-59-26D	450		USCGS: 6.6 N 73.0 W Central Colombia
		iS	ne	19-00-39			

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No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
29	30	iP	ALL	20-20-05D		USCGS: 5.0 N 76.3 W Western Colombia Felt Force V, Balboa Heights
30	31	iP iS	z ne	02-46-28D 47-12	210	
31	31	iP iS	z ne	08-52-57C 53-38	195	


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SEISMOLOGICAL BULLETIN - AUGUST 1962

Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e)

No.	Date	Phase	Comp.	Time	Epicentral Distance		Remarks
				G.C.T.	(Miles)		
1	1	eP	Z	04-56-20	270	270	USCGS: 3.2 S 143.7 E Near North Coast of New Guinea
		iPP	Z	59-08			
		iS	N	05-17-20			
		iL	N	40-22			
2	2	iP	Z	04-46-41C			USCGS: 19.3 N 81.0 W South of Cuba
3	3	iP	z	04-07-21.5D	270	270	USCGS: 5.2 N 76.4 W Western Colombia
		iS	ne	08-17			
4	3	iP	z	06-43-04C	225	225	Felt El Volcan, R. de P.
		iS	ne	43-51			
5	3	iP	Z	09-02-53D	2,300	2,300	USCGS: 23.2 S 67.5 W Northern Chile-Argentine Border
		iS	NE	08-11			
6	3	iP	z	20-31-32C	125	125	
		iS	n	31-58.5			
7	4	eP	z	07-48-31	220	220	
		iS	n	49-17			
8	4	iP	z	11-52-27.5D	220	220	
		iS	n	53-13			
9	5	iP	z	18-22-18D	200	200	
		iS	ne	23-00.5			
10	6	iP	z	08-22-19C	205	205	
		iS	ne	23-02			
11	6	iS	ne	10-49-21	355	355	
12	7	i	z	19-23-32			USCGS: 9.6 N 82.5 W Near North Coast of Panama
13	8	iP	z	10-25-05C			

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No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
14	9	iP iS	z ne	04-23-29.5 C 24-43	355	USCGS: 6.7 N 73.1 W Colombia
15	10	iP iS	z ne	06-39-39D 40-21.5	200	
16	10	iP iS	z ne	07-03-01D 03-43	200	
17	10	iP iS	z ne	09-36-06.5D 36-46	190	
18	11	iP iS	z ne	08-52-12D 52-50	180	
19	11	iP iS	z ne	18-44-52C 45-38	220	
20	11	iP iS	z ne	22-14-26D 14-55	140	
21	13	iP iS	ALL ALL	06-37-49D 39-39	650	USCGS: 2.1 N 83.5 W About 300 miles northwest of Ecuador
22	16	iP iS	z ne	14-51-22.5C 52-08	220	
23	17	iP iS	z ne	05-24-25C 26-13	650	
24	17	iP iS	z ne	15-15-52.5C 16-53	290	
25	20	iP iS	z ne	11-22-44C 23-08	115	
26	21	iP iS	z ne	11-10-58C 11-25	130	



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No.	Date	Phase	Comp.	Time G.C.T.	Epicentral Distance (Miles)	Remarks
27	21	iP i i	Z E E	21-18-41 25-53 30-50		USCGS: 28.7 S 176.8 W Kermadec Islands Region
28	24	iP iS	z ne	09-44-08.5D 44-12	22	
29	29	iP iS	z ne	10-14-43C 15-07	115	USCGS: 7.3 N 80.5 W Near South Coast of Panama Felt Force II, Balboa Heights

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SEISMOLOGICAL BULLETIN - SEPTEMBER 1962

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No.	Date	Phase	Comp.	Time	Epicentral Distance		Remarks
				G.C.T.	(Miles)		
1	1	iP	Z	19-35-32C	USCGS: 35.3 N 49.7 E		Northwest Iran
		iPR ₁	NE	40-16			
		SPS	NE	50-04			
2	7	iP	z	05-54-11D	275		
		iS	ne	55-08			
3	11	iP	z	08-15-44.5D	100		
		iS	ne	16-05.5			
4	14	iP	z	03-50-44C	165	Felt El Volcan, R. de P.	
		iS	ne	51-18			
5	18	iP	z	00-16-20D	135		
		iS	ne	16-48.5			
6	18	iP	z	00-29-52D	220	USCGS: 7.5 N 82.3 W South of Panama Felt Force III, Balboa Heights Felt El Volcan, R. de P. Felt strongly Boquete, Concep- cion, Puerto Armuelles and area surrounding David R. de P. Minor property damage	
		iS	ne	30-38			
7	18	iP	z	00-58-56.5	220		
		iS	ne	59-42			
8	18	iP	z	01-02-24	220		
		iS	ne	03-10			
9	18	iP	z	02-16-40.5	65		
		iS	ne	17-27			
10	18	iP	z	02-21-19	65		
		iS	ne	22-07			
11	18	iP	z	04-44-42	220		
		iS	ne	45-27			

PANAMA CANAL COMPANY
 Engineering and Constructio Bureau
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Lat. 8° 57' 39" N
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Balboa Heights, Canal Zone

h: 36 meters

SEISMOLOGICAL BULLETIN - SEPTEMBER 1962

Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e)

No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
12	18	iP	z	05-14-21	240	USCGS: 7.3 N 82.4 W South of Panama
		iS	ne	15-11		
13	18	iP	z	05-50-00	220	
		iS	ne	50-46		
14	18	iP	z	05-54-41	210	
		iS	ne	55-25		
15	18	iP	z	10-53-31	190	
		iS	ne	54-11		
16	18	iP	z	13-33-23D		
17	18	iP	z	13-53-24D	205	
		iS	ne	54-07		
18	18	iP	z	16-04-55D	75	
		iS	ne	05-11		
19	19	iP	z	01-42-04C	295	USCGS: 7.6 N 81.8 W South of Panama
		iS	ne	43-05		
20	19	iP	z	23-25-49D	225	
		iS	ne	26-36		
21	20	iP	z	13-59-28	210	
		iS	ne	14-00-12		
22	20	iP	z	14-13-24D	215	
		iS	ne	14-09		
23	20	iP	z	14-42-05C	205	
		iS	ne	42-48		
24	20	iP	n	16-13-07	195	
		iS	n	13-48		
25	20	iP	n	16-17-18	190	
		iS	n	17-58		



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Balboa Heights, Canal Zone

h: 36 meters

SEISMOLOGICAL BULLETIN - SEPTEMBER 1962

----- Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e) -----

No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
26	20	iP	e	22-32-38	210	
		iS	e	33-22		
27	21	iP	e	05-42-10	105	
		iS	e	42-32		
28	22	iP	z	14-27-09D	215	
		iS	ne	27-54		
29	23	iP	z	01-43-53	205	
		iS	ne	44-36		
30	24	iP	z	14-23-29D	200	USCGS: 7.7 N 83.3 W South of Panama
		iS	ne	24-11		
31	26	iP	z	20-11-09C	215	
		iS	ne	11-54		
32	28	iP	ne	06-42-25	210	
		iS	ne	43-09		
33	28	iP	n	18-56-17	270	USCGS: 5.2 N 76.2 W Western Colombia
		iS	ne	57-13		
34	29	iP	n	10-14-46	215	
		iS	n	15-31		
35	29	iP	z	15-24-27D		USCGS: 27.0 S 63.6 W Santiago Del Estero Province, Argentina

W. H. Esslinger
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Chief Hydrographer



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Balboa Heights, Canal Zone

h: 36 meters

SEISMOLOGICAL BULLETIN - OCTOBER 1962

Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e)

No.	Date	Phase	Comp.	Time G.C.T.	Epicentral Distance (Miles)	Remarks
1	6	iP iS	z ne	15-38-55D 39-47	250	
2	7	iP iS	z ne	08-52-58D 53-45	225	
3	14	iP iS	z ne	06-52-21.5D 53-03	200	Felt El Volcan, R. de P.
4	16	iP iS	z ne	21-23-47D 24-26	185	
5	23	iP iS	z ne	09-04-13C 05-53	600	USCGS: 9.5 N 70.0 W North-Central Venezuela
6	25	iP	z	07-10-43D		
7	25	iP	z	15-53-17C		USCGS: 8.4 N 82.6 W Panama-Costa Rica Border Felt Force II, Balboa Heights Felt El Volcan, R. de P.
8	26	iP iS	z ne	12-42-21D 42-36	75	
9	29	iP iS	Z NE	00-20-37D 21-29	250	
10	30	iP iS	z NE	08-49-01D 51-38	1,350	
11	31	iP iS	Z NE	11-33-36D 34-51	360	USCGS: 5.6 N 82.6 W South of Panama

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Balboa Heights, Canal Zone

h: 36 meters

SEISMOLOGICAL BULLETIN - NOVEMBER 1962

----- Standard Seismograph System USC&GS: Sprengnether LP (Z.N.E); Benioff SP (z.n.e) -----

No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
1	4	iP iS	Z NE	23-02-43D 10-10	3,700	USCGS: 43.2S 75.6W Off Coast of Southern Chile
2	8	eP	Z	00-07-25		USCGS: 15.1S 75.6W Near Coast of Southern Peru
3	8	e	Z	00-44-08		USCGS: 4.4S 105.5W 1700 Km Southwest of Galapagos Islands
4	11	iP	Z	22-23-27D		
5	15	iP	Z	23-29-20D		USCGS: 8.7S 79.8W Near Coast of Northern Peru
6	16	iP	Z	07-27-35C		USCGS: 32.3S 111.1W Easter Island Region
7	19	iP iS	z ne	00-34-13D 34-23	50	
8	19	iP iS	z ne	14-32-08D 33-21	350	USCGS: 6.7N 73.0W Colombia
9	23	iP	Z	00-35-22C		USCGS: 15.1S 75.3W Near Coast of Southern Peru
10	29	iP iS	z ne	10-13-25C 13-33.5	50	

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Balboa Heights, Canal Zone

h: 36 meters

SEISMOLOGICAL BULLETIN - DECEMBER 1962

----- Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e) -----

No.	Date	Phase	Comp.	Time	Epicentral Distance	Remarks
				G.C.T.	(Miles)	
1	8	iP	Z	21-33-51C		USCGS: 25.8S 63.4W Salta-Santiago Del Estero Provinces Border, Argentina
2	10	iP	z	00-20-43D	330	
		iS	ne	21-52		
3	10	iP	z	03-20-24C	200	
		iS	ne	21-06		
4	21	iP	Z	01-04-20		
5	21	iP	Z	07-00-20	6,400	
		iS	NE	11-10		
6	21	iP	Z	08-55-08		USCGS: 52.4N 168.5W Fox Islands, Aleutian Islands
7	21	iP	Z	09-49-15		USCGS: 22.8S 66.5W Bolivia-Argentina Border
8	21	iP	z	15-57-00		
9	21	iP	z	18-40-24		
10	21	iP	z	21-30-17		Felt: El Volcan, R. de P.
11	22	i	z	01-07-03		USCGS: 22.0S 170.1E Loyalty Islands Region
12	22	iP	z	06-38-23		USCGS: 1.1S 81.0W Near Coast of Ecuador
13	22	iP	z	08-41-05	110	
		iS	ne	41-28		
14	22	iP	z	15-32-55		
15	23	iP	z	09-14-03	175	
		iS	ne	14-40		



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Balboa Heights, Canal Zone

h: 36 meters

SEISMOLOGICAL BULLETIN - ~~DECEMBER~~ 1962

Standard Seismograph System USC&GS: Sprengnether LP (Z,N,E); Benioff SP (z,n,e)

No.	Date	Phase	Comp.	Time G.C.T.	Epicentral Distance (Miles)	Remarks
16	24	iP iS	z ne	02-18-26 18-44	85	
17	24	iP	z	03-22-28		
18	24	iP iS	z ne	07-05-14 05-24	50	
19	24	iP	z	07-30-49		
20	24	iP	z	07-46-35		
21	24	iP	z	21-19-56		
22	25	iP iS	z ne	03-08-51 09-18	130	
23	26	iP iS	Z NE	22-38-44C 51-30	6,800	USCGS: 52.9N 168.7E Komandorskie Islands
24	29	iP	z	10-47-15		USCGS: 20.0S 69.9W Northern Chile
25	30	iP iS	z ne	06-10-46 11-34	230	
26	30	eP	Z	18-47-14		USCGS: 4.7S 153.7E New Britain. Felt at Rabaul
27	31	iP	z	01-51-09		

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