

3 JAN 1969

SVEUČILIŠTE U ZAGREBU — PRIRODOSLOVNO-MATEMATIČKI FAKULTET
GEOFIZIČKI INSTITUT

UNIVERSITY OF ZAGREB — FACULTY OF SCIENCES
GEOPHYSICAL INSTITUTE

IZVJEŠĆE O POTRESIMA

SEISMOLOGICAL BULLETIN

Godina: 1967
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REGISTRACIJE SEIZMOGRAFA
Records of Seismographs

(lat. = 45°49'N, long. = 15°59'E, H = 155 m)
Horizontal seismograph, Wiechert M = 1000 kg
Vertical " " M = 1300 kg
Horizontal " " M = 80 kg

Date	Phase	M	G	T	Per.	A m p l i t u d e			D°	Remarks
						h	m	s		
J A N U A R Y 1967										
1	ePKP eP' e ^r	07	25	31,4 47,1 54,2					144 16000	Tonga Islands. USCGS: 15,3 S, 173,6 W, H=07:05:48,6.
2	eP _n eS _n e _n	08	23 25	(00) 31,7 46,0					14 1600	Interrupt. Africa, Cyrena; BCIS: 32,4 N, 22,8 E, H=08:19:32; USCGS: 32,2 N, 22,7 E, H=08:19:32,8.
4	eP _n e _n e(S)	06	01 02 03	(00) 16,3 24,3					8,1 900	Interrupt. Greece; BCIS: 38,4 N, 22,2 E, H=05:58:56; USCGS: 38,6 N, 22,1 E, H=05: 58:54,1.
5	eP _n i _n eS _n eS _n M ₁ M ₂	00	24 32 34 46 51	20,6 34,0 22,3 18,4 - -	13,2 14,1	550	940	56 6200	Compr. Mongolia; felt at Ulan Bator and Irkutsk. USCGS: 48,1 N, 102,8 E, H=00:14: 40,4.	
11	eP _n	11	26	13,6						Compr. Iraq-Iran border region.
17	eP eS	12	11 22	54,9 15,7				82 9100	Compr. Near east coast of Honshu, Japan.	
18	eP e e M	05	44 52 56 06	35,2 54,4 56,8 -	11		68	59 6550	Eastern USSR; felt at Chita. USCGS: 56,6 N, 120,8 E, H=05:34:32,6.	

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D ^o D km	Remarks
						NE	NW	Z		
18	eP _n e _n	08	30	39,0 41,8				81 9000	Fox Islands, Aleutian Islands.	
19	ePKP	12	59	54,6				144 16000	Compr. Fiji Islands region. USCGS: 14,8 S, 17,8 W, H=12:40:12,6.	
	e _e			57,3						
	eP' _r e _r			06,4						
20	eP e e e M	02	07	(00)				53 5900	Interrupt. Mongolia. USCGS: 48,0 N, 102,9 E, H=01:57:23,1.	
				07,8						
				12,3						
				18,3						
					11		27			
21	ePKP eP' _r	03	13	44,1 53,6				145 16100	USCGS: 49,8 S, 114,8 W, H=02:54:00,8.	
24	eP _n e eS _n	09	38	57,0				57 6200	Central Mid-atlantic Ridge. USCGS: 0,6 S, 21,0 W, H=09:29:12,3.	
				17,9						
				42,7						
				46						
25	eP _n e _n eFP ePPP	01	57	46,5				42 4700	Compr. Afganistan-USSR border region, felt widely. USCGS: 36,6 N, 71,6 E, H=01:50:19,4.	
				13,8						
				11,7						
				44,3						
26	eP iS i	14	26	19,9						
				38,8						
				55,3						
28	eP _n eS _n	14	05	16,2					Compr. Aleutian Islands.	
				28,6						
29	iP _n iP _b e e eS _n eS _n e M	00	12	53,0				2,3 260	Compr. Upper Austria. BCIS: 47,9 N, 14,2 E, H=00:12:14; USCGS: 47,9 N, 14,3 E, H=00:12:13,6.	
				57,7						
				12,8						
				22,3						
				25,5						
				33,8						
				35,8					M=4,5.	
					1,4					
						36,5				

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D ^o D km	Remarks		
						NE	NW	Z				
29	eS _n	20	07	16,0						Trace. Italy.		
29	eP eS	20	45	32,9					1,3 140	Yugoslavia, Slovenia, felt at Ilirska Bistrica; BCIS: 45 1/2 N, 14 1/4 E, H=20:45:09.		
				49,2								
30	eP e eS	01	25	14,9						Compr. ? Armenia, USCGS: BCIS: 41,0 N, 44,2 E, H=01:20:27; USCGS: 41,0 N, 44,2 E, H=01:20:31,7.		
				29,3								
				35 (00)								
F E B R U A R Y 1967												
1	e	18	55	42,8						Trace.		
2	e	12	10	(00)						Interrupt. Trace.		
2	e	12	18	35,1								
9	eP i i iS i i M ₁ M ₂	14	09	59,2				4,3 4,0	72	69	6,3 700	Compr. Albania. BCIS: 40,0 N, 20,1 E, H=14:08:23; USCGS: 40,0 N, 20,3 E, H=14:08:18,7.
				23,7								
				36,0								
				51,1								
				11 40,7								
				12 08,0								
				11,4								
9	eP _n eP _n i _c iPP iS _n	15	37	35,5							87,5 9700	Compr. Colombia; 100 killed, many injured, major damage at Campoale, Guacamaya and Neiva. USCGS: 2,9 N, 74,9 W, H=15:24:47,2.
				54,4								
				39 13,1								
				41 22,3								
				48 22,6								
11	eP i i i iS M ₁	09	18	05,5				0,9	11		0,27 30	
				06,2								
				07,4								
				09,0								
				09,6								

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
						NE	NW	Z		
13	eP	23	20	58,8	9,8 11,3	173		265	33 3700	Dilat. Atlantic Ocean. BCIS:52,9 N, 33,7 W, H=23:14:26; USCGS:52,7 N, 34,1 W, H=23:14:19,6.
	e _n			21 10,8						
	ePP			22 18,1						
	e(P _c P)			23 44,0						
	eS _n			26 20,5						
	e(P _s S)			27 37,2						
	eSS _c S			28 30,9						
	e			30 28,2						
M ₁			35							
M ₂			36							
14	eP _n	01	47	40,5					74 8300	Andaman Islands region; felt at Bangkok, Thailand. USCGS:13,7 N, 96,5 E, H=01:36:04,7.
	i _n			47,6						
	eS _n			57 18,5						
eP _S			33,9							
14	e	02	13	28,0						Yugoslavia, NE from Sarajevo. BCIS:44,2 N, 19,2 E, H=02:12:37.
	i			14 12,8						
	i			23,4						
15	ePKP	16	23	34,9					95,5 10600	Dilat? Peru-Brazil border region. USCGS: 9,0 S, 71,3 W, H=16:11: 11,8, h=597 km.
	eS			33 10,4						
16	e	23	42	53,4						Trace.
	i			55,1						
	i			55,5						
17	ePKP	10	30	34,9						Trace. Tonga Islands region.
19	e	23	38	54,8						Trace.
22	eP	18	46	18,5						New Hebrides.
i				23,0						
23	eP	22	39	25,5	1,9 3,7				2,1 230	Dilat. Yugoslavia, Drniš; felt at Split. BCIS:43,7 N, 15,9 E, H=22:38:50.
	iP _n			29,3						
	i _b			30,2						
	iP			31,0						
	i			37,1						
	i			38,0						
	i			43,5						
	iS _n			54,6						
	iS _b			55,3						
	M ₁	40	15,4							
	M ₂		23,2							

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
						NE	NW	Z		
24	eP	15	21	55,9	1,8	3,9				Felt at Čapljina.
	i			22 24,1						
	iS			33,4						
M										
27	eP	21	02	52,5	3,8	3,9			8,1 900	Rumania. BCIS:45,0 N, 27,1 E, H=21:00:50.
	i			03 32,5						
	i			04 09,8						
	iS			51,9						
	M	05	22,1							
28	eP	14	24	25,3					9,0 1000	Greece. BCIS:38 3/4 N, 22 3/4 E, H=14:21:57; USCGS: 37,5 N, 21,3 E, H=14:21:54.
	iS			25 53,0						
	i _n			26 05,8						
M A R C H 1967										
4	eP	00	01	24,7						Trace. Italy; BCIS:43,8 N, 12,8 E, H=00:00:22.
iS				57,7						
4	ePKP	06	35	42,6						Tonga Is. USCGS:18,5 S, 175,4 W, H=06:16:21,9, h=225 km.
i				50,9						
4	iP _n	18	00	17,6	6,5 3,5				9,0 1000	Dilat. Aegeian Sea. BCIS:39,2 N, 24,6 E, H=17:58:01; USCGS:39,2 N, 24,6 E, H=17:58:06,4.
	i			23,1						
	i			29,0						
	i			32,5						
	i			35,9						
	i	01	23,8							
	iS			55,5						
	iS _n	02	34,5							
	i			45,4						
	i			49,7						
	i	03	(00)							
	M ₁	04								
M ₂										
7	eP	08	01	17,3	1,6 1,9	-6,2			2,5 280	Dilat. Yugoslavia, Mostar V. BCIS:43,4 N, 17,7 E, H= 08:00:35; USCGS: 43,3 N, 17,7 E, H=08:00:32,2.
	i			24,3						
	i			31,2						
	i			45,4						
	i			49,9						
	i			50,4						
	iS			56,8						
	i			57,5						
	M	02	14,1							
	M ₂		15,8							

Date	Phase	M	G	T	Per. Sec.	A m p l i t u d e			D° D km	Remarks
						NE	NW	Z		
9	eP i i iS i M	16	55	(00) 04,9 07,0 09,5 10,3 13,8	1,0	+4,0				Interrupt.
13	eP _n	19	28	47,5						Trace.Red Sea.
15	eP i iS	03	40	12,0 32,4 35,7						
17	eP e eS	12	09	(00) 29,2 36,1						Interrupt.
19	eP i eS M	04	13	49,3 14 10,5 23 28,8 55 52,8	14,6	+4,1		80 8900		Kurile Islands.USCGS: 45,4 N,151,3 E,H=01:01: 36,7.
20	eP _n	14	04	19,4						Trace.Kurile Is.
22	eP _n iS _n eS _c	19	15	35,5 16 07,8 11,1				2,6 290		Italy,Alps,BCIS:46,3 N, 12,6 E, H=19:14:51.
23	e	18	49	(00)						Interrupt.Trace.
24	e e e	09	17	(00) 22 22,3 26 43,3						Interrupt.Java S.USCGS: 6,0 S, 112,3 E, H=09:00: 19,5.
24	eP _n iS _n iS	17	39	52,4 41 30,0 31,5				5,2 580		Switzerland,Valais; BCIS:46,4 N,7,4 E,H=17: 38:15; USCGS:46,6 N, 7,7 E, H=17:38:18.
25	e	18	34	38,5						Trace.
25	eP _n	23	00	14,6						Trace.Kurile Is.
28	e	00	10	23,8						Aegean Sea.

Date	Phase	M	G	T	Per. Sec.	A m p l i t u d e			D° D km	Remarks
						NE	NW	Z		
28	eP i i iS	12	16	31,3 31,6 32,6 34,2						Dilat.
28	eS _n e _n	15	53	28,2 54 35,3				9,0 1000		Belgium,Hainaut;BCIS: 50,5 N,4,1 E, H=15:49: 25;USCGS: 50,5 N, 41 E, H=15:49:23.
30	eP iS i i	13	50	29,9 51 24,2 26,5 37,5				4,1 450		Yugoslavia,Belgrade III; BCIS:43,4 N,20,8 E, H=13:49:11.
30	ePKP	23	24	34,1						Trace.Tiji Islands re- gion.
A P R I L 1967										
1	eP _n e _n e e	06	06	27,9 32,0 38,1 09 19,6				80 8900		Kurile Islands.USCGS: 45,8 N,151,8 E, H=05: 54:19,1.
1	eP _n e _n eS _n	12	35	47,2 54,3 45 44,6				80 8900		Kurile Islands.USCGS: 45,7 N,151,8 E, H=12: 23:35,5.
3	eP i iS i M	16	37	28,4 39,9 38 14,5 27,7 43,0	2,0	9,2		3,6 400		Italy;BCIS:44,8 N,10,9 E, H=16:36:18; USCGS:44,9 N, 10,6 E, H=16:36:19,8.
4	e	03	52	24,5						Trace.Turkey.
4	e	17	05	(00)						Interrupt.Trace.Medite- rranean Sea.
5	ePKP	02	52	(00)						Interrupt.Trace.Mariana Is.
12	eP _n e _n eS _n	05	03	44,0 04 31,8 13 43,4				79 8800		Sumatra.USCGS:5,3 N, 96,5 E,H=04:51:40,2.

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D ^o D km	Remarks
						NE	NW	Z		
13	eP _n	20	06	16,1						Trace.Ryukyu Islands.
15	eP _n iP _n i i i iS i	02	08	30,8 33,0 40,6 42,8 46,8 53,2 59,3				1,4 160		Dilat.Yugoslavia.BCIS: 44,3 N,16,3 E,H=02:08: 04.
M A Y 1967										
1	eP _n i iP i iS _b i iS i M	07	10	49,6 51,9 11 21,3 28,7 47,2 12 29,9 36,5 13 05,8 42,5 15,5	7,4	205			7,2 800	Compr.Northwestern Greece; at least 9 killed,more than 54 injured and extensive property damage. BCIS:39,5 N,21,2 E, H=07:09:00; USCGS:39,7 N,21,3 E, H=07:09:00,5. Mag.=5 3/4-6(Pas.),5,8- 6,2(Brk.),5 3/4-6(Gol.), 5 1/2(Pal.).
1	eP _n eS _n eS _n	09	51	50,0 53 20,8 54 18,5					7,2 800	Rep.BCIS: H=09:50:08.
1	e	18	14	(00)						Interrupt.Trace.Rep.
2	eS	01	31	25,8						Trace.Northwestern Greece.Rep.
2	eS	08	15	21,5						Trace.Rep.
2	e	10	00	18,3						Trace.Rep.
3	e eP _g	18	43	45,6 44 09,9					7,2 800	Northwestern Greece. BCIS: 39,6 N,21,2 E, H=18:41:46;USCGS:39,7 N, 21,5 E,H=18:41:47,0.
4	eP iS	13	33	08,9 34 39,5					7,2 800	Rep.BCIS: H=13:31:07.

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D ^o D km	Remarks
						NE	NW	Z		
5	eP eS	06	28	45,2 30 21,1					7,2 800	Rep.BCIS: H=06:26:37.
5	e i	07	29	24,3 28,0						Local.
5	e	13	53	43,8						Trace.
9	eP _n	06	27	18,0						Trace.Kurile Is.
9	e	07	28	(00)						Interrupt.Trace.Greece.
9	eP eS _b	08	03	07,6 04 24,0					7,2 800	Northwestern Greece. BCIS:39,7 N,21,3 E,H=08: 00:46.
11	eP eS	14	59	56,6 15 08 43,6						Tadzhik-Sinkiang border region.USCGS:39,4 N, 73,8 E, H=14:50:58,8.
12	eP i iP iS _g iS _n	17	54	33,7 40,4 44,9 55 23,1 44,4					4,4 490	Italy.BCIS:44,6 N,10,4 E, H=17:53:24.
14	eP _n e i iS i	04	18	13,6 29,8 20 10,8 19,2 21 18,6					9,0 1000	Ionian S.BCIS:37,6 N, 21,0 E, H=04:15:58, h= 50 km cca.
15	eP _n e e	08	16	27,8 20 18,6 21 51,5					14 1600	Mediterranean S.BCIS: 34,6 N,26,9 E, H=08:12: 56.
15	eP iS _b	10	05	(00) 49,8					4,4 490	Interrupt.Italy.BCIS: 44,6 N,10,4 E, H=10:03: 34.
16	eP iS	13	26	28,9 51,3						
21	eP e eS i	18	57	42,0 58 25,1 19 07 49,2 08 07,9						Compr.Southern Sumatra. USCGS:1,0 S,101,5 E, H=18:45:11,7.

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D ^o D km	Remarks
						NE	NW	Z		
24	e i	18	03	38,0 49,0						Trace.Local.
25	e i	12	30	31,3 39,6						Trace.Local.
27	eP _n i eS _n	17	35	13,1 13,9 45 30,5				81 9000		Compr.Rat Isl.,Aleutian Isl.USCGS:51,9 N,176,1 E, H=17:22:58,7.
27	eP ePP i	19	14	18,5 16 20,8 37,5				47 5200		Kashmir.USCGS:36,1 N, 77,8 E, H=19:05:48,5.
J U N E 1967										
1	eP _n e _n	10	42	38,0 46 46,5				13,5 1500		Turkey.BCIS:36,8 N,29,2 E, H=10:39:19.
7	eP e iS _n i	16	20	13,8 16,2 35,0 45,3 45,9				2,3 260		Austria.BCIS:47,9 N,14,3 E, H=16:19:25; USCGS:48,0 N, 14,3 E, H=16:19:27,2.
8	e	13	15	13,1						Trace.Local.
8	e e	13	41	17,0 50,0						Loyalty Isl.region.
11	eP eS i	05	38	16,8 40 13,9 37,2						Greece.BCIS: 38,1 N,22,9 E, H=05:35:04.
12	e e e	01	32	36,9 34 22,6 41,7						Greece.BCIS:37 3/4 N, 22 3/4 E, H=01:29:06; USCGS: 38,2 N, 22,8 E, H=01:29:06,9.
12	eP e e e e e i e M	02	53	19,8 54 36,0 49,7 55 24,9 41,9 56 15,0 28,3 38,9	5,0	17		9,0 1000		Greece.BCIS: 38,1 N,22,8 E, H=02:51:05.

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D ^o D km	Remarks
						NE	NW	Z		
12	e e e	11	04	(00) 05 27,1 47,7						Interrupt.Southern Greece. BCIS: 37 3/4 N, 22 3/4 E, H=11:00:15.
12	eP eS	18	15	18,4 17 19,3						Greece.BCIS: 39,2 N,21,5 E, H=18:12:48.
12	e	23	08	23,5						Trace.
12	eP _n e _n	23	34	40,9 54,0						Trace.Kurile Isl.USCGS: 47,4 N,154,3 E, H=23:22: 45,3, h=56 km.
14	ePKP eP _r	05	26	09,1 34,4						Tonga Isl.USCGS: 15,2 S, 173,6 W, H=05:06:16,3.
16	e	22	58	27,1						Trace.Yugoslavia.BCIS: 44,0 N,20,0 E,H=22:56:57.
17	ePKP e eSKS	05	19	(00) 24 42,4 25 43,8				120 13300		Interrupt.South Sandwich Islands region.USCGS:58,3 S, 26,6 W, H=05:00:11,8, h=140 km.
17	eP i iS	15	44	12,7 45 07,8 21,9				3,8 420		Southern Italy.BCIS:41,7 N, 16,0 E, H=15:42:58,USCGS: 41,6 N,16,2 E, H=15:42:55.
17	eP eS	17	46	37,3 47 18,3				2,9 320		Carpathians.BCIS:48,4 N, 17,5 E, H=17:45:41.
17	e	19	19	11,4						Trace.
18	iP i iS i M ₁ M ₂	09	56	38,2 38,9 39,1 41,8	0,0 0,0	41				Dilat.Felt at Zagreb. BCIS: 45,8 N, 16,0 E, H=09:56:37.
19	eP _n e eS _n	17	20	(00) 11,3 30 20,4				81 9000		Interrupt.Fox Isl.,Aleutian Isl.USCGS:52,7 N,166,9 W, H=17:07:45,4.
20	e e	07	51	08,6 30,0						Trace.Aleutian S.

14

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
						NE	NW	Z		
22	eP eS	11 01	38,6	03 (00)						Greece. Interrupt.
30	eP iS	13 09	26,1	28,0						Dilat.Zagreb I.
J U L Y 1967										
1	e	02 05	(00)							Trace.
1	eP eP _n eS _b eS _b M	02 56	24,5 34,6 57 10,4 21,5 24,4		1,9	+4,7			3,2 360	Yugoslavia.BCIS:43,9 N, 19,2 E, H=02:55:30.
1	e	04 26	(00)							Interrupt.Trace.
1	eP eS	12 57	57,1	58 (00)						Zagreb I. Interrupt.
1	eP eS _n	23 22	15,5 32 19,4						80 8900	Compr.South of Alaska. USCGS: 54,4 N,158,0 W, H=23:10:07,2.
2	eP eS _b	00 32	32,4 33 16,3						3,2 360	Yugoslavia.BCIS: 43,9 N, 19,2 E, H=00:31:37.
2	eP eS _n eS _b	01 15	(00) 40,8 46,4						3,2 360	Interrupt.Rep.BCIS:H=01: 14:06,USCGS: 01:14:03.
2	eP eS	01 18	13,0 55,6						3,2 360	Rep.BCIS: H=01:17:13.
3	eP iP _b i iP i iS iS M M ₂	02 54	32,6 40,2 40,8 43,8 52,3 55 20,9 28,3 43,1 56 21,4		4,7 4,7	-29			2,8 310	Yugoslavia.BCIS: 44,0 N, 19,0 E, H=02:53:48; USCGS: 44,2 N,19,2 E,H=02:53:48. Felt at Beograd and S.Mitrovica.

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
						NE	NW	Z		
5	eP i iS e	00 55	50,2 57 29,4 48,0 59 14,3						10,5 1170	Ionian S.BCIS:36,7 N,21,5 E, H=00:53:15;USCGS: 36,8 N,21,3 E, H=00:53:14,2.
5	e	16 55	06,5							Trace.Rep.BCIS: H=16:49: 34.
6	eP e	08 24	46,9 27 45,8						12 1300	Ionian S.BCIS:36,6 N,21,4 E, H=08:21:49.
6	eP eS _n eS _n	13 54	44,0 14 05 (00)						82 9100	Fox Islands,Aleutian Isl. Interrupt.
6	eP e	19 29	54,3							Trace.Central Mid Atlantic Ridge.
8	eP eS	09 53	51,4 54 10,9							
9	eP i i i	19 21	42,1 47,1 56,7 57,5							
11	eP iP _n i iS _b iS _b iS _n	12 41	45,7 50,9 53,6 42 06,8 07,9 08,8						14 160	Dilat. Dilat. Dilat. Yugoslavia.BCIS:44,5 N, 17,3 E,H=12:41:19.
13	ePKP e e	10 23	57,0 24 06,4 23,5						142 15800	Compr.New Hebrides Isl. USCGS: 20,4 S,169,3 E, H=10:04:19,0.
13	eP eS e	14 40	50,6 41 55,8 42 21,7						5,6 625	Dilat.Albania.BCIS:40,6 N, 19,5 E, H=14:38:52.
16	e ePP	13 53	20,5 38,0							Trace.West New Guinea region.
16	eP e eS eS _n	19 02	25,3 38,3 44,2 49,7						1,8 200	Yugoslavia.BCIS:44,0 N, 17,0 E, H=19:01:49.

Date	Phase	M G T h m s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
				NE	NW	Z		
19	eS e	09 12 25,2 44,8						Turkey, Anatolia. BCIS: 37,3 N, 30,0 E, H=09:06:06.
20	eP _n	15 50 22,0						Dilat. West Caroline Islands.
20	iP̄ iS̄	16 20 21,0 32,4					1,0 110	Dilat. Yugoslavia, Istra. BCIS: 45 1/2 N, 14 1/4 E, H=16:20:02.
20	eP _n eS _n	19 05 16,1 06 43,1					7,2 800	Albania. BCIS: 40,7 N, 19,7 E, H=19:03:28.
22	eP _n iS̄ M ₁ M ₂ M ₃	16 59 45,7 02 48,8 03 51,7 04	4,2 2,5 4,0	+1600	-270	+430	12 1310	Dilat. Turkey; 173 killed, 183 injured, major proper- ty damage in Sakarya, Hendek and Akyazi provin- ces. BCIS: 40,7 N, 30,8 E, H=16:56:52; USCGS: 40,7 N, 30,8 E, H=16:56:53,3, h=4 km.
23	e	04 55 11,8						Turkey.
23	e	07 48 41,2	3,6					Turkey.
25	eS _n	08 41 18,7						Greece-Bulgaria border region.
25	eP̄ e iS̄	11 23 06,0 11,3 21,6					1,0 110	Yugoslavia. BCIS: 45,6 N, 14,5 E, H=11:22:47.
26	eP _n eS _n	18 57 22,4 19 01 (00)					19 2100	Dilat. Interrupt. Turkey. 92 killed 120 injured, major proper- ty damage in eastern Turkey. BCIS: 39,5 N, 40,3 E, H=18:52:55; USCGS: 39,5 N, 40,4 E, H=18:53:01,3.
29	eP̄ iS̄	00 16 09,5 19,7						
29	eP _n e eS _n e	10 36 43,1 38 11,5 46 53,3 48 (00)					86 9600	Northern Colombia; 10 killed. USCGS: 6,8 N, 73,0 W, H=10:24:24,6, h=161 km.

Date	Phase	M G T h m s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
				NE	NW	Z		
30	eP _n e eS _n	00 12 (00) 26,3 22 (00)					78 8700	Interrupt. Near coast of Venezuela; 236 deaths, 2000 injured, major pro- perty damage in Carracas area.
30	eP _n eS _n e M ₁ M ₂	01 33 57,1 36 12,9 43,2 37 (00) 54,7 38 09,5	3,9 4,9	-7,8	+4,3		12 1340	Turkey; property damage in Akyazi-Sakarya area. Interrupt. BCIS: 40,7 N, 30,8 E, H=01:30:59; USCGS: 40,7 N, 30,4 E, H=01:31:01,7.
30	ePKP	11 09 26,8						Trace. Macquarie Isl.
31	e	19 17 25,7						
AUGUST 1967								
2	eP _n e	11 12 36,0 18 44,6					29 3200	Jan Mayen Isl. region. USCGS: 71,2 N, 8,0 W, H=11: 06:38,7.
4	eP _n iP _b i eS _n M	14 55 24,4 27,7 42,5 56 (00) 40,2	6,8		+14		3,2 350	Yugoslavia. BCIS: 42,8 N, 17,7 E, H=14:54:32; USCGS: 42,9 N, 17,7 E, H=14:54: 33,3.
12	ePKP e e e	09 59 24,3 10 00 05,9 09 55,2 10 07,8					156 17300	Compr. Mouth of Fiji Islands. USCGS: 24,7 S, 177,5 W, H=09:39:44,3, h=134 km.
13	eP _n e e eS	20 18 36,0 19 19,8 20 (00) 21 54,2 28 21,2					82 9100	Compr. Japan, southern Honshu. Interrupt. USCGS: 35,3 N, 135,3 E, H=20:06:50,6.
13	eP _n e e e e e iS i	22 10 49,4 11 26,8 40,5 51,5 13 56,5 14 16,1 43,3 52,0					12 1360	France; Pyrenees. 1 killed 60 injured, and 80 houses destroyed at Arette; felt in Northern Spain. BCIS: 43°05'N, 0°45'W, H=22:07:50; USCGS: 43,2 N, 0,5 W, H=22:07:47,5.

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
						NE	NW	Z		
14	eP _n eS _n i _n	10	17	36,7 18 30,3 39,4				4,9 530	Northern Italy. BCIS:46,9 N,10,3 E, H=10:16:21; USCGS:46,9 N, 10,4 E,H=10:16:18.	
14	e	20	15	38,0					Trace.Turkey.	
15	eP _n eS _n	07	08	14,7 09 47,4				6,8 760	Trace.Tyrrhenian S.BCIS: 38,6 N,15,2 E,H=07:06:28.	
15	eP _n	09	31	14,8					Trace.Tibet.	
15	e	11	31	(00)					Interrupt.Trace.	
20	e	02	24	35,0					Trace.Kazakhstan-Sinkiang border.	
21	eP _n i _n i eS _n	07	45	09,8 27,9 47,9 55 (00)				81 9000	Compr.Off west coast of Northern Sumatra.USCGS: 3,6 N,95,8 E,H=07:33:00,6 h=33 km. Interrupt.	
22	ePP ePS	13	21	12,2 30 48,2				109 12100	South Sandwich Islands. region.	
26	eFKP eSKS	00	54	(00) 01 01 25,8				104 11550	Interrupt.West Caroline Islands.	
27	eP _n eS _n	13	22	19,0 33 24,7				91 10100	Nicaragua.USCGS:12,3 N, 86,2 W, H=13:08:55,9.	
30	eP _n e i eP _S eS _c eS _n	04	32	40,9 45,9 33 11,5 38 (00) 41 19,0				65 7200	Szechwan Province, China. USCGS: 31,7 N,100,3 E, H=04:22:01,5. Interrupt.	
30	e	13	45	41,6					Kurile Is.	
31	e	19	12	47,0					Trace.Tonga Is.	

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
						NE	NW	Z		
S E P T E M B E R 1967										
3	eS _n	07	50	(00)						Interrupt.Southern Greece.
3	eP _n ePP eSKS	21	21	21,7 25 36,3 32 (00)					100 11100	Off coast of Peru. USCGS:10,6 S,79,8 W, H=21:07:30,8.
5	iP̄ iP _n i _n iS̄ iS _n iS _n M	11	37	27,3 28,4 34,4 42,0 44,3 45,3 50,0	2,0	+19			1,2 130	Dilat.Yugoslavia;BCIS: 45,7 N,14,2 E,H=11:37: 04. Felt at Ilirska Bistrica(V ^o MCS), Trieste(IV ^o MCS). USCGS:45,6 N,13,9 E, H=11:37:03.
5	eP̄ eS̄ eS _n	15	18	39,0 55,0 57,2					1,2 130	Rep.BCIS: H=15:18:16. Felt at Trieste(III ^o MCS).
5	iP̄ iP _n i _n iS̄ M ₁ M ₂	15	21	23,5 24,3 25,1 39,7 41,9 46,4	2,0 2,0	+19	+20		1,2 130	Dilat.Rep.BCIS:H=15: 21:01. Felt at Trieste(IV ^o MCS).
5	eP iS	17	55	35,1 53,6						
6	eS e	05	04	51,2 06 41,4						Mediterranean S.BCIS: 35,1 N,23,2 E, H=04: 59:20. Trace.Albania.
7	eP	00	34	22,9						
7	eSKS eSS	07	36	06,5 44 25,0					101,5 11300	Celebes;USCGS:2,7 N, 124,3 E,H=17:12:36,6, h=274 km.
7	eP eS	14	11	11,8 12 33,8						Sicily.BCIS:37,9 N, 15,2 E,H=14:09:01; USCGS: 37,9 N,15,3 E, H=14:09:02,8.
8	e	02	04	(00)						Interrupt.

Date	Phase	M G T h m s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
				NE	NW	Z		
8	eP _n e _i i _n i _b i _i M.	02 06 18,4 51,8 53,6 07 08,2 27,0 32,7 46,0 54,7 08 06,3 19,2 55,9	4,7	+22			5,9 660	Dilat.Albania.BCIS: 40,9 N,20,2 E, H=02: 04:46;USCGS:40,7 N, 20,2 E, H=02:04:49,1.
8	eP eS	09 54 19,4 55 53,3						Greece.BCIS:38 3/4 N, 21 1/4 E, H=00:51:37.
9	e eS	10 23 35,8 30 38,7					103 11450	Santiago del Estero. USCGS: 27,7 S,63,1 W, H=10:06:44,1, h=578 km.
19	eP _n e _n eS _n	11 08 13,3 09 (00) 18 14,6					79 8800	Hokkaido,Japan region. Interrupt.
20	eP eP _n iP _b i iS _n	06 09 44,6 48,8 56,0 10 03,7 14,0					1,9 210	Yugoslavia.BCIS:44,2 N, 17,7 E, H=06:09:06:11; USCGS: 44,3 N,17,7 E, H=06:09:11. Felt in the Travnik- Sarajevo area.
20	eFKP e e ePP	09 59 11,8 16,7 26,3 10 00 46,3 04 (00)					159 17650	Auckland Isl.region; felt on Campbell Island. USCGS:49,8 S,163,4 E, H=09:39:15,2. Interrupt.
20	eFKP e	10 50 47,9 51 26,5					158 17500	Auckland Isl.region.
22	eP	10 30 11,4						Kurile Islands.
24	eP _n e eS	22 13 (00) 24,2 14 29,5					5,2 580	Interrupt.BCIS:40,7 N, 19,7 E, H=22:11:18.
24	eS _n	22 30 (00)						Interrupt.Trace.Alps.

Date	Phase	M G T h m s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
				NE	NW	Z		
26	eP _b eP _b eS _b	05 07 19,2 28,2 08 27,3 38,1					5,6 625	Yugoslavia,Macedonia; minor damage at Kiševo. BCIS:41,7 N,21,3 E, H= 05:05:36; USCGS: 41,7 N, 21,2 E, H=05:05:36.
O C T O B E R 1967								
1	eP	22 46 58,6						Trace.Italy.
4	eP eL	17 40 28,0 47,5	60				130 14450	New Ireland region. USCGS:5,7 S,153,9 E, H=17:21:20,7.
5	eP eS _n e	12 03 09,5 06 (00) 07,1					9,4 1040	Ionian S. Interrupt.BCIS:37,7 N, 20,7 E, H=12:00:49.
9	ePKP ₁ iPKP ₂ e e e	17 40 27,4 50,8 43 13,3 50 11,2 54 43,4					153 17000	Dilat.Fiji Islands re- gion.USCGS:21,1 S,179,3 W, H=17:21:49,5, H=654 km.
12	eP i	06 53 45,0 54,5					152 16900	Dilat.Fiji Isl.region. Compr.
12	iP	13 04 42,3						Dilat.Northwest of Kurile Islands.
12	eFKP e	18 50 10,1 53,2					117 13000	Banda Sea.
15	eP eS e	08 13 30,8 23 13,1 25 27,0					89 9900	Compr.Near coast of Nicaragua.USCGS:11,9 N, 86,0 W, H=08:00:50,3.
18	eP _n	01 18 31,8						Dilat.BCIS:79,8 N, 1 3/4 E, H=01:11:39.
19	eP iS	04 18 47,2 49,3						Local.Zagreb I.
21	eP _n eS _n	16 55 39,8 56 14,7					2,7 300	Compr.Yugoslavia.BCIS: 43,0 N,17,0 E, H=16:54: 56.

Date	Phase	M G T h m s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
				NE	NW	Z		
24	iP i iS	16 17 53,2 55,0 58,2					0,3 35	Dilat.Felt at Krapinske Toplice.BCIS:46,1 N, 15,9 E, H=16:17:47.
24	eS	18 56 21,6						Local.
24	eP iS	22 12 34,8 37,9						
25	eP eS eS _c	01 11 43,2 21 57,9 22 23,3					82 9100	Compr.Taiwan region. USCGS: 24,5 N,122,2 E, H=00:59:22,6,h=65 km.
30	i	12 56 13,8						Italy,Sicily.
31	eP _n	21 10 04,7						
NOVEMBER 1967								
3	eP eS eS _n	13 20 53,4 21 06,9 11,3					1,0 110	Yugoslavia.45,5 N,14,6 E, H=13:20:33. (BCIS)
4	eP eS e	00 12 58,0 13 05,8 08,5						Japan.
4	eL	15 11	31					
18	eS e _n	02 36 48,2 39 26,5	3,8				12 1350	Mediterranean S.BCIS:35,0 N,23,0 E, H=02:31:32; USCGS:35,2 N,23,1 E, H=02:31:35,4.
19	e e	17 49 09,1 16,1						Loyalty Isl. Dilat.
22	iPKP	15 39 12,6						Loyalty Islands region.
23	eP e _n e e eS _n	08 43 53,0 44 05,1 10,4 19,7 50 33,1					44 4900	Dilat.Eastern Gulf of Aden.USCGS:14,5 N, 52,1 E, H=08:35:49,5.
23	eP _n	13 48 59,5						Arctic O.,NW from Spitsbergen.

Date	Phase	M G T h m s	Per. Sec.	A m p l i t u d e			D° D km	Remarks
				NE	NW	Z		
25	iP i	13 17 15,3 17,3						Dilat.Zagreb III.
26	eP eS _n eS _n	03 26 53,7 28 22,3 29 15,4					7,7 860	Greece-Albania border region;BCIS:39,5 N, 20,6 E, H=03:24:58, h=45 km; USCGS:39,4 N, 20,4 E, H=03:24:57, h=44 km.
30	eP eP _n e iP _b i e i i iS _n i iS _b iS _b i M ₁ M ₂	07 25 11,5 13,3 14,5 18,1 35,7 57,5 26 05,7 10,4 23,1 25,8 37,3 50,4 53,0 27 01,9 12,6					5,7 620	Albania; BCIS:41°27'N, 20°27'E, H=07:23: 52, h=30 km cca; USCGS: 41,5 N,20,5 E, H=07: 23:51,5, H=29 km.
								11 killed and 134 in- jured at Peshkopi,Alba- nia; 7 killed and 40 injured at DeWar,Yugo- slavia.Considerable damage in Peshkopi- Debar area.
30	eP eS	07 44 16,6 45 52,8		4,6 3,7	+530	+820		Rep.
DECEMBER 1967								
1	eS eS _n	08 41 19,5 50,8					5,9 650	Athens:41,3 N,19,8 E, H=08:38:33.
1	i	12 38 38,4						Local.
1	eP _n	14 08 48,4						Kurile Islands.
1	eP	18 32 45,8						Albania.BCIS:45,2 N, 20,2 E, H=18:31:04.
1	eP eP _n eS	20 09 12,5 43,7 10 49,9					5,4 600	Yugoslavia-Albania border region.BCIS: 41,1 N,20,5 E,H=20: 07:53.

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D ^o D km	Remarks
						NE	NW	Z		
2	eP _n eS _n	00	25	49,0 27 11,2					5,7 640	BCIS:41,3 N,20,4 E, H=00:24:16.
2	eP _n eP _n eS _b	09	28	24,1 53,7 29 48,5						Rep.BCIS:41 1/2 N,20 1/2 E, H=09:27:12.
2	eP _n eP _n i _n eP _n iS _n eS _n iS _b M ₁ M ₂	12	46	07,2 11,4 27,8 32,3 47 19,7 33,3 38,1 48 07,6 50,5	4,0 4,7	+52		+44	5,4 600	Compr.Albania-Yugoslavia borde region.BCIS:41,4 N, 20,3 E, H=12:44:45; USCGS:41,3 N,20,3 E, H=12:44:42,7, h=17 km.
2	eP _n e eS eS	14	19	44,7 54,3 20 49,6 59,4						Albania.USCGS:41,4 N, 20,1 E, H=14:18:95.
3	eP eS	18	01	15,4 02 29,1					6,3 700	Athens:41,3 N,20,3 E, H=17:59:23.
3	eP	19	50	56,7						Italy.
3	eP _n eP _n e eS	21	31	(00) 18,7 22,7 32 18,1					3,6 400	Interrupt.Italy.BCIS: 42,3 N,13,4 E, H=21:29: 59; USCGS: 42,5 N,13,2 E, H=21:30:00,3.
4	eP	00	50	48,2						Yugoslavia,Macedonia.
5	e	21	59	20,8						
6	eP _n eS _n	00	03	27,4 04 54,3					6,3 700	Athens:41,2 N,20,3 E, H=00:01:53.
7	eP eS _n	18	05	12,0 06 34,0					5,7 630	Yugoslavia-Albania border region.BCIS:41,2 N, 20,3 E, H=18:03:35.
8	eP iS	09	34	32,6 33,3						Zagreb I.

Date	Phase	M h	G m	T s	Per. Sec.	A m p l i t u d e			D ^o D km	Remarks
						NE	NW	Z		
8	eP eS	14	02	34,7 36,5						Zagreb I.
9	eP _n eS _n iS	03	10	56,0 11 52,2 55,8					3,5 400	Adriatic S.BCIS:42 1/4 N, 16 1/4 E, H=03:09:57.
9	eP eS	05	45	17,9 38,5					1,1 120	Felt at Rijeka.BCIS: 45,4 N,14,6 E, H=05: 44:59.
9	eS e	08	55	39,2 54,5					1,1 120	Felt at Rijeka.Rep. BCIS: H=08:55:00.
9	eP eS	09	18	55,9 19 09,5					1,1 120	Felt at Rijeka,Yugosla- via.BCIS: 45,6 N,14,5 E, H=09:18:35.
10	eP eS	14	45	46,7 48,6						Zagreb I.
10	eP _n	23	00	57,7						India;about 100 killed, 1300 injured.
12	eP e iS	04	13	28,9 31,4 40,4					1,0 110	Felt at Rijeka.
12	e	20	07	08,6						Trace.
13	eP eS	10	42	41,4 54,9					7,7 85	Slovenia,Yugoslavia. Ljubljana: 45° 53' N, 14° 49' E, H=10:42:28.
16	eP eP _n i _n i i iS iS _n	01	58	26,8 27,9 31,8 36,5 39,1 40,5 42,9					1,1 120	
19	eP eP _n eP _b e eS eS _n	08	33	49,4 55,8 34 13,4 26,6 51,0 35 18,8					5,4 600	Yugoslavia-Albania border region;I _o =VII, Debar VI.BCIS: 41,3 N, 20,3 E, H=08:32:28.

Date	Phase	M	G	T	Per. Sec.	A m p l i t u d e			D ^o D km	Remarks
						NE	NW	Z		
20	eS			26,6						
	e			36,1						
	M ₁	36	20,4	5,5	-11		-12			
	M ₂	37	25,7	3,9		-13				
20	i	10	44	14,8	-1,2					Dilat.Explosion.
	i			15,7		-1,6				
21	eP _n	00	11	17,7				5,6		Yugoslavia, Tetovo V-VII
	eP _b			28,7				620		BCIS: 42,0 N, 21,0 E, H=00:09:37.
	i			52,6						
	eS _n	12		30,6						
	e			36,5						
	eS _b			40,2						
	eS _g			52,2						
21	M ₂	13	05,0	4,7	-14					
	eP _n	02	39	24,8				103		Dilat.Near coast of
	eP _b			43 30,8				11400		Northern Chile;USCGS: 21,8 S,70,0 W, H=02:25: 21,6.
22	e	03	22	32,4	26		+300			
	M ₂			24 25,9	20	+70				
22	eP _n	07	23	46,7				5,7		Athens: H=07:22:03;
	eP _b			55,7				630		probably 40 3/4 N, 21 E.
	eS _n	24		54,9						
	e			57,9						
24	eP _n	20	14	17,3				68		Dilat.Leeward Islands.
	eP _n			22,9				7560		USCGS: 17,4 N, 61,3 W, H=20:03:10,9.
	eP			33,2						
	eP _P			48,8						
	eS _c	23		13,3						
	ePS			23,2						
	eSKS	24		23,9						
24	e	20	42	29,7						
	e			41,7						
24	eP _n	21	43	36,5				69		Dilat.Leeward Islands;
	e			45,0				7700		USCGS: 17,4 N, 61,2 W, H=21:32:31.
	e			44 19,3						
25	ePKP	01	42	32,2				127		New Ireland region;
	e			41,8				14100		USCGS: 5,3 S,153,7 E, H=01:23:33,6.
	ePP			44 39,6						
	e			52 15,5						

Date	Phase	M	G	T	Per. Sec.	A m p l i t u d e			D ^o D km	Remarks
						NS	NW	Z		
27	eP	07	20	07,4						
	e			17,9						
	e			21 28,2						
27	e			37,9						
	e	09	42	(00)						Interrupt.
29	e			39,8						
	eP _n	19	50	45,1				5,4		Yugoslavia-Albania border
29	e			51,2				600		region. BCIS: 41,4 N, 20,3 E, H=19:49:23.
	eS _n	51		55,3						
29	e	22	57	42,4						Tonga Isl.
30	eP _n	04	20	05,8				2,9		Italy. BCIS: 44,8 N, 12,0 E, H=04:19:19,
	iP _n			16,1				320		h= 30 - 40 km.
30	iS			21 04,9						
	eP _n	21	29	36,9				6,8		Albania.BCIS: 40,0 N, 20 1/4 E, H=21:27:19;
	eS			30 58,5				750		USCGS: 40,7 N, 21,6 E, H=21:27:21.

MAKROSEIZMIČKI IZVJEŠTAJ
IZ S. R. HRVATSKE
MACROSEISMICAL REPORT
FROM S. R. CROATIA

Br. No.	Dan Date	Sr.evr.vr. M E T	Kotar District	Mjesto Locality	M.C.S. Sc.	Bilješke-Remarks
V E L J A Č A - F E B R U A R Y 1967						
1	23	23 38 50	Split Mostar Split	Muč Donji Šibenik Benkovac Biograd n/m Drniš Okraj Trogir Vrlika Livno* Kistanje Sinj	V V IV IV IV IV IV IV IV III III	Not felt at: Donji Lapac, Karlovac.
L I P A N J - J U N E 1967						
2	18	10 56 37	Zagreb	Vel. Gorica Zagreb	IV III	Not felt at: Dugo Selo, Pokupsko.
S R P A N J - J U L Y 1967						
3	9	20 21	Varaždin	Ivanec	V	Not felt at: Novi Marof.
L I S T O P A D - O C T O B E R 1967						
4	24	17 17 47	Zagreb	Krap. Toplice Krapina Donja Stubica	V IV-V IV	Not felt at: Ivanec, Novi Marof, Zlatar- Bistrica.
S T U D E N I - N O V E M B E R 1967						
5	25	14 17	Zagreb	Zagreb	III	

* S.R. Bosnia and Hercegovina.

Br. No.	Dan Date	Sr.evr.vr. M E T	Kotar District	Mjesto Locality	M.C.S. Sc.	Bilješke-Remarks
P R O S I N A C - D E C E M B E R 1967						
6	9	06 44 59	Rijeka	Crikvenica	III	
7	9	09 55 00	Rijeka	Rijeka	III-IV	
8	9	10 18 35	Rijeka	Rijeka	IV	Not felt at: Delnice.
9	12	05 13	Rijeka	Rijeka	III	
10	16	02 58	Rijeka	Senj	IV	Not felt at: Krk.
11	25		Rijeka	Krk	II-III	