

Hydrometeorological Institute
Seismological Station
SARAJEVO, Grdonj 36
Yugoslavia

SEISMOLOGICAL BULLETIN

Coordinates: 43° 52,4 N Lat; 18° 25,7 E Long						
Height : 725 m.						
Ground : Lime - stone /Trias/						
Instruments	Comp.	To sec.	v:l	V	r/2 To	Recording speed mm/min.
Mainka, M=450 kg.	E-W	10,0	3,6	141,2	0,021	57 - 60
Mainka, M=450 kg.	N-S	10,0	2,7	130	0,036	57 - 60

I seismographic registrations

JANUARY 1964										
N ^o	Date	Phase	T I M E			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
1	1	eP	17	39	08					USCGS: Kurile Islands 45,4N., 151,9 E H= 17 26 43,5 h ≈ 45 km. Mag. 6 /Pal/
		e		44	44					
		e/S/	49	34						
		eL	18	16	28					
2	2	iP	21	54	26				33	SW from Sarajevo
		i			28					
		iS			30					
3	6	i	14	25	04					Local
4	9	eP	18	44	07					USCGS: Kurile Islands 45,5N., 150,9 E H= 18 31 52,4 h ≈ 40 km. Mag. 5.6 /CGS/
		e		45	27					
		ePP		47	18					
		eS		54	13					

Seism. Station Sarajevo

JANUARY 1964

No	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	REMARKS
			h	m	s		A N	A E		
5	18	eP	12	17	03					USCGS: Taiwan 110 dead 479 injured H= 12 04 40 h ≈ 33 km. Mag. $6\frac{3}{4}$ /Pas/
		e			33					
		ePP			20 15					
		e			21 32					
		e			28 08					
		eL			50 08					
6	20	e	17	28	04					USCGS: Loyalti Islands region 20,7 S., 169,9 E H= 17 08 37,4 h ≈ 141 km. Mag. 6.1 /CGS/
		e			25					
		e			29 14					
7	26	ePP	09	27	18			99°		USCGS: Southern Peru 6 injured 16,3 S., 71,7 W H= 09 09 33,9 h ≈ 116 km. Mag. 6.1 ± 0.3 /CGS/
		e			29 30					
		e			33 43					
8	28	iP	14	16	36					USCGS: Hindu Kush Northwestern Pakistan 36,5 N., 70,9 E H= 14 09 17,1 Mag. 6.1 ± 0.4 /CGS/
		i			17 17					
		i			19 15					
		i/S/			22 34					
		i			23 39					
		e			25 40					

Seism. Station Sarajevo

JANUARY 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
9	30	eP	17	48	32					USCGS: Near Southwest coast of Turkey 37,3 N., 29,9 E. H= 17 45 54,6 h ≈ 41 km. Mag. 5.3 [±] 0.2 /CGS/
		e		49	11					
		e		51	10					
		M		53	06					
		F	18	03	27					

FEBRUARY 1964

10	5	eP	11	42	39				83°	USCGS: Central Honshu, Japan. Felt: Tokyo 36,5 N., 141,0 E H= 11 30 15,7 h ≈ 46 km.
		e		43	03					
		e		46	07					
		e		53	10					
11	6	eP	13	19	28				79°	USCGS: Kodiak Islands region 55,7 N., 155,8 W. H= 13 07 25,2 h ≈ 33 km. Mag. 6 ³ / ₄ -7 /Pas/
		e			38					
		e		22	13					
		eSKS	29	49						
		M ₁	14	01	16					
M ₂		02	38							
12	12	e	22	52	55					USCGS: Samoa Islands region 15,3 S., 174,4 W. H= 22 33 59,2 Mag. 5 ³ / ₄ /Bks/
		e		53	58					

Seism. Station Sarajevo

FEBRUARY 1964										
N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
13	14	e e e	20	05 07 08	54 14 02					
14	17	iP iS	03	12	18 31			110	Stolac region Felt in Stolac	
15		e e/S/ e	20	21 22 23	28 36 32			890	USCGS: Switzerland Slight damage in Unterwalden 47,2 N., 8,5 E. H= 12 19 02,9 h ≈ 33 km. Mag. 4.6 /CGS/	
16	23	ePn eRsP i iRsP ₂ iRsS M ₁ M ₂ F	22	42 43 44 46 59	21 39 14 33 47 59 00 53			530	USCGS: Aegean Sea Felt: Athens, 39,2 N., 23,7 E. H= 22 41 06,3 h ≈ 33 km. Mag. 4.5±0.2 /CGS/	
17	24	ePn e e	23	31 32	42 20 45				USCGS: Aegean Sea 39,2 N., 23,8 E. H= 23 30 24,6 h ≈ 16 km. Mag. 4.4 /CGS/	

Seism. Station Sarajevo

FEBRUARY 1964

No	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	REMARKS
			h	m	s		A N	A E		
18	27	eP	01	38	09				370	
		e/R _s P/			24					
		e			39 19					
		e			40 02					
19		eP	15	21	20					
		e			49					
		e			22 01					

MARCH 1964

20	10	e/P/ e e	11	53	36 54 59				
21	14	ePn i e e	02	39	27 28 11 21				USCGS: Switzerland Slight damage in central Switzerland. 47,1 N., 8,3 E. H= 02 37 24,6 h ≈ 33 km. Mag. 4.7 [±] 0.4 /CGS/
22	15	eP i i i i/S/ e M	22	35	12 18 32 04 13 19 17				USCGS: Gibraltar 36,2 N., 7,6 W. H= 22 30 26,0 h ≈ 27 km. Mag. 6 ³ / ₄ -7 /Pas/

Seism. Station Sarajevo

MARCH 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
23	18	iP ₀ iS _n e e	16	44 45	25 57 11 27				355	
24	28	iP i	03	47 48	53 05					USCGS: Alaska 61,1 N., 147,6 W. H= 03 36 12,7 h ≈ 20 km. Mag. 8.4 /Pas/
25		eP eS	10	47 57	44 42					USCGS: Rep. Alaska 57,2 N., 152,4 W. H= 10 35 38,9 h ≈ 33 km. Mag. 6.3 /Pas/
26		e eS	12	32 43	59 11					Rep. Alaska
27		eP e eS e	14 15	59 05 09 11	31 24 07 23					USCGS: Rep. Alaska 60,4 N., 146,5 W. H= 14 47 37,1 h ≈ 10 km. Mag. 6.3 /Pas/
28		e eS	20	41 50	07 46					USCGS: Rep. Alaska 59,8 N., 148,7 W. H= 20 29 08,6 h ≈ 40 km. Mag. 6.6 /Pas/

Seism. Station Sarajevo

MARCH 1964

No	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
29	30	eP	02	30	40				USCGS: Rep. Alaska 56,6 N., 152,9 W. H= 02 18 06,3 h ≈ 25 km. Mag. 6.6 /Pas/	
		eS		40	28					
30		e	03	30	24					
		e		33	16					
31		eP	07	21	20				USCGS: Rep. Alaska 59,9 N., 145,7 W. H= 07 09 34,0 h ≈ 15 km. Mag. 6.2 /Pas/	
		e		22	30					
		e/S/		31	09					
32		eP _n	23	48	02					
		iP ₀			05					
		e			11					
		e			27					
		eS _n			33					
M	53						232			

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 Raport Macro-seismic
/Bosnia and Hercegovina/

Seism. Station Sarajevo

JANUARY 1964

N ^o	Date	T I M E /GMT/		L O C A L I T Y	Intensitet /Mercalli- Sieberg ^o /	REMARKS
		h	m			
1	18	04	25	Travnik	V	
	19	23	15	Travnik	IV	

FEBRUARY 1964

1	17	03	12	Stolac	IV	
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Izdaje: Seizmološka stanica Sarajevo, Grdonj 36
 Uredjuje: Miloš Janković, Seizmološka stanica Sarajevo
 Umnoženo u Seizmološkoj stanici Sarajevo

Seism. Station Sarajevo

AUGUST 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ°) D km.
			h	m	s		A N	A E	
93	2	e/Pb/	10	41	29	SAR			USCGS: Central Italy 43.0 N., 13.0 E. H= 10 40 23.7 h= 33 km. Mag. 4.5 /CGS/
		e		42	03				
		e		13					
		i		46					
94	13	e	00	49	32				USCGS: 5 ^o 4 S., 154.3 E. H= 00 31 14.1 h= 383 km. Mag. 6 /CGS/
		e		50	31				
		e/PP/		51	48				
		e	01	03	13				
		e		04	23				
95	17	e	00	19	37				USCGS: Crete 35.0 N., 26.0 E. H= 00 17 40.9 h= 18 km. Mag. 4.8 /CGS/
		e		20	11				
		e/S/		21	38				
		e		23	09				
96	18	e/P	00	34	07	SAR			Duvno region Yugoslavia 43.38' N., 17.14' E. USCGS: 44.2 N., 16.4 E. H= 00 33 55 h= 33 km. Mag. 4.4 /CGS/
		LRIF			11				
		i			14				
		LS			19				
97	24	e/P/	21	44	11				
		e			43				
		e			45				

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Seism. Station Sarajevo

AUGUST 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ°) D km.	REMARKS
			h	m	s		A N	A E		
98	25	e	11	14	37					
		e		15	25					
		e/S/		16	51					
		M		18	32					
		F		34	-					
99		eP	13	56	17					
		e		57	11					
		ePP		58	23					
		e	14	03	41					
		e		04	21			51°2		
		eL		23	11					
100		e	19	34	29					
		e/PP/			37					
		e		35	19					
		eSn		36	25			11°8		
		e		38	30					
101	28	ePn	12	07	55				USCGS: Ionian Sea 37.9 N., 19.8 E. H= 12 06 18.3 h= 61 km. Mag. 4.5 /CGS/	
		e/Pg/		08	18					
		e			38			6.1		
		eS ₂ *		09	25			678		
102	31	e/Pn/	19	37	53					
		e		38	11					
		e			31					
		e/Rs ₂ /			43					

SAR

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Seismological Station
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Yugoslavia

SEISMOLOGICAL BULLETIN

Coordinates: $43^{\circ} 52,4$ N Lat; $18^{\circ} 25,7$ E Long						
Height : 725 m.						
Ground : Lime - stone /Trias/						
Instruments	Comp.	To sec.	v:1	V	r/2 To	Recording speed mm/min.
Mainka, M=450 kg.	E-W	10,0	3,6	141,2	0,021	57 - 60
Mainka, M=450 kg.	N-S	10,0	2,7	130	0,036	57 - 60

I seismographic registrations

APRIL 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ°) D km.	R E M A R K S
			h	m	s		A N	A N		
33	2	eP	01	23	35				USCGS:05.9N., 95.7E H= 01 11 55 h \approx 132 km. Mag. 5.2 ± 0.4 /CGS/	
		e		24	21					
		iS		33	22					
		e		34	32					
		e		42	08					
34	4	eP	17	58	19				USCGS:Rep. Alaska 56.3 N., 154.4 W H= 17 46 08.6 h \approx 25 km. Mag. 6.5 /Pas/	
		e			34					
		i	18	04	28					
		eS		08	24					
		eL		34	41					
35	8	e	14	14	48				USCGS:35.1N., 24.3E H= 14 12 29.5 h \approx 71 km.	
		e		16	28					
		e			33					

Seism. Station Sarajevo

APRIL 1964

N ^o	Date	Phase	T I M E			Per. sec.	Amplitude		Distance (Δ°) D km.	R E M A R K S
			h	m	s		A N	A E		
36	11	ePn	16	02	01				USCGS: 40.5N., 25E H= 16 00 42.8 Mag. 5.7 /Ath/	
		e			11					
		i			34					
		iRs ^{PS} ₂		03	24					
		iRs ^S			38					
		M ₁		04	02					
		M ₂		06	13					
		F		23						
37		e	23	08	40					
38	12	e	07	59	59					
		e	08	00	13					
		e		01	37					
39	13	i ^F	08	30	27				Zagreb: Dilj gora 45°18'N., 18°06'E H= 08 30 00,4 h ≈ 25 km. 158 two killed and many injured property damage. USCGS: 45.3N., 18.1E H= 08 30 03.6 h ≈ 33 km. Because of a shock the recording levers got out of their bearings in both seismographs	
		iRi ^F			30					
		iRs ^F			35					
		i			40					
		i/Ri ^{PS} /			42					
		i ^S			45					

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Seism. Station Sarajevo

APRIL 1964										
№	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
47		e	14	31	44					
		e		32	36					
		e		33	01					
48	24	e	06	11	49				USCGS: North-East New Guinea	
		e		12	46				5.1 S., 144.2 E., H= 05 56 10.1	
		e		16	13				h ≈ 106 km. Mag. 6.3 [±] 06 /CGS/	
49	27	e/PKP/ i	07	04	26 25				USCGS: Balleny Islands region	
									60.1 S., 151.0 E., H= 06 44 25.1	
									h ≈ 33 km. Mag. 5.0 /CGS/	
50	29	ePn	04	22	08				USCGS: Aegean Sea	
		iRsP̄			35				Extensive property	
		i			53				damage Skopelos	
		iRsP̄ ₂ S̄		23	15				Islands	
		i			47				39.3 N., 23.7 E	
		iRsS̄		24	09				H= 04 21 06.7	
		i			18				h ≈ 33 km.	
		M		25	34				Mag. 5 ¹ / ₄ /Pa1/	
		F		40						
51		e	17	02	02					
		e			43					
		e		03	02					

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Seism. Station Sarajevo

MAY 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
52	2	eP ePP iS eL	16	23	16 34 22 46				USCGS: Kurile Islands 45°5 N., 150°3 E H= 16 11 00.2 h ≈ 35 km. Mag. 5.7 [±] 0.4 /CGS/	
53	7	e/P/ e e iS	05	54	22 52 36 32				USCGS: Tanganyika 4.0 S., 34°9 E., H= 05 45 29.5 h ≈ 33 km. Mag. 6.25 /Pal/	
54		eP e ePP iS M	08	10	26 45 33 33 45				USCGS: Japan 40°4 N., 139° E. H= 07 58 14.3 h ≈ 33 km. Mag. 7 /Pas/	
55	7	eP e e i eL	20	25	04 22 32 11 12				USCGS: Japan 40°5 N., 139° E. H= 20 12 49.3 h ≈ 33 km. Mag. 5.9 [±] 0.3 /CGS/	
56	15	e e	01	15	21 04				Traces	
57		eP iS	02	44	23 35				Stolac region /IV°/ Felt in Trebinje	

Seism. Station Sarajevo

MAY 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ) D km.	R E M A R K S
			h	m	s		A N	A E		
58	17	eP eS	19	34 40	11 29				USCGS: North Atlantic Ocean 35.2 N., 35.9 W. H= 19 26 20.6 h \approx 33 km. Mag. $6\frac{1}{2}$ /Pas/	
59	25	eP eS e e	01	38 39	37 11 14 22				Zagreb: Bilo-gora	
60	26	eP e e iSKKS i	11	13 16 25 31	26 34 46 07 02				USCGS: Sandwich Islands 56.2 S., 27.8 W. H= 10 59 12.3 h \approx 120 km. Mag. $7\frac{1}{2}$ /BRK/	
61	28	eP eS	22	10	16 27			95		
62	30	eP ePP e	14	43 46 53	14 35 40			84 ^o	USCGS: Japan 36.2 N., 141.1 E. H= 14 30 45.3 h 49 km. Mag. 5.4 ± 0.2 /CGS/	
63	31	eP e e eL	00 01	52 53 02 25	50 09 58 11				USCGS: Kurile Islands 43.5 N., 146.8 E. H= 00 40 36.4 h \approx 48 km. Mag. 6.3 ± 0.4 /CGS/	

Seism. Station Sarajevo

JUNE 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ) D km.	R E M A R K S
			h	m	s		A N	A E		
64	10	eP e iS	22	30	09 26 41 04				USCGS: Taland Islands region 5.0 N., 127.4 E H= 22 16 44.8 h \approx 146 km.	
65	12	e e e	07	51	27 08 37					
66		iP iS	21	43	25 30 31			51		
67	14	i	08	32	28					
68		iP e iSS i M	12	19	23 29 22 39 23 23 26 26				USCGS: Southeastern Turkey /Malatya/ 38.0 N., 38.5 E. H= 12 15 31.3 h \approx 8 km.	
69	15	eP e	00	17	30 18 18				USCGS: Northern Sumatra 5.4 N., 97.0 E. H= 00 05 31.1 h \approx 33 km.	

Seism. Station Sarajevo

JUNE 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ°) D km.	R E M A R S K
			h	m	s		A N	A E		
70	16	eP	04	14	02					USCGS: Niigata Japan 38.3 N., 139.1 E. 25 killed, many injured H= 04 01 44.3 h \approx 57 km. Mag. $7\frac{1}{4}$ - $7\frac{1}{2}$ /PAS/ JMA /Japan Met. Agency/: 38.4 N., 139.2 E. h \approx 40 km.
		i			25					
		iPP			17 30					
		i/S/			24 21					
		e			29 07					
		L			35 38					
M	50 59									
71	19	e	00	55	03					
		e			32					
72	23	iP	01	38	49					USCGS: Kurile Islands /82.2 ^o / 43.3 N., 146.1 E. H= 01 26 37.0 h \approx 77 km. Mag. 7 /PAS/
		i			39 17					
		iS			48 53					
73		e/Pn/	06	39	17					
		e			23					
		e			43					
		e/Sn/			56					
74		e	10	17	06					
		e			29					
75	25	i	03	19	11					Local

Seism. Station Sarajevo

JUNE 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
76	30	iPn	12	31	07				USCGS: Eastern Austria /4 ^o 3/ 472 47.8 N., 16.0 E. H= 12 30 03.3 h ≈ 33 km. Mag. 4.8 /CGS/	
		i			52					
		i		32	17					
		iS			20					
77		eP	14	00	58				USCGS: North Celebes 0.8 S., 122.5 E. H= 13 46 21.6 h ≈ 36 km. Mag. 6.3 /CGS/	
		e		04	26					
		e		10	26					
		e		11	43					
		eL		40	12					

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 Raport Macro-seismic
 /Bosnia and Hercegovina/

Seism. Station Sarajevo

APRIL 1964

N ^o	Date	T I M E /GMT/		District	Locality	Intensity /Mercalli- Sieberg/ MCS ^o	R E M A R K S
		h	m				
1	25	08	04	Mostar	Stolac	IV	
2	26	10	47		Stolac	IV	It was underground
3		11	30		Stolac	III	thunder before the
4		12	20		Stolac	III	earthquake

MAY 1964

1	5	02	16	Mostar	Stolac	III	Ep. Stolac region
2			30		Stolac	III	
3	15	02	46		Stolac	IV	Ep. Stolac region
					Trebinje	IV	
					Pridvorci	IV	
4			49		Stolac	III	
5		03	02		Stolac	III	

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Coordinates: $43^{\circ} 52,4$ N Lat; $18^{\circ} 25,7$ E Long
 Height : 725 m.
 Ground : Lime - Stone /Trias/

Instruments	Comp.	To sec.	v:l	V	r/2 To	Recording speed mm/min.
Mainka, M=450 kg.	E-W	10,0	3,6	141,2	0,021	57 - 60
Mainka, M=450 kg.	N-S	10,0	2,7	130	0,036	57 - 60

I seismographic registrations

JULY 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ°) D km.	R E M A R K S
			h	m	s		A N	A E		
78	4	ePb e eRsP ₂ S i /S/ i M	11	12	33 45 13 02 36 40 44	T=8.4		4 ^o 15	USCGS: Southwestern Bulgaria; Felt in Razlog 42.2 N., 23.6 E H= 11 11 20,0 h= 10 km. Mag. 6.0 /CGS/	
79	5	e e	04	55	15 36					
80	5	e e eL	19	32	15 11 23				USCGS: Gulf of California 26.2 N., 110.2 W. H= 19 07 57.8 h= 29 km. Mag. 6.0 /CGS/	

Seism. Station Sarajevo

JULY 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ) D km.	R E M A R K S
			h	m	s		A N	A E		
81	.5	eP e eS e	23	48	15 20 26 44				82 ^o ,8	USCGS: Kurile Islands 44.8 N., 149.6 E H= 23 36 01.5 h = 54 km. Mag. 6 $\frac{1}{4}$ /Pas/
82	6	e e e e eL	02	29	23 48 24 50 21					USCGS: Gulf of California 26.2 N., 110.4 W. H= 02 14 36,0 h = 33 km. Mag. 6-6 $\frac{1}{4}$ /BRK/
83		eP e ePP e eSKS eL	07	35	17 35 23 11 15 14				95 ^o ,4	USCGS: Guerrero Mexico More than 30 killed Many injured 18.3 N., 100.4 W. H= 07 22 11.7 h = 100 km. Mag. 6.3 /CGS/
84		iP iRsP iS e e	13	58	59 06 23 28 36				178	USCGS: Yugoslavia Felt in Split. 43.9 N., 16.1 E. H= 13 58 31.0 h = 36 km. Mag. 4.7 /CGS/

Seism. Station Sarajevo

JULY 1964

No	Date	Phase	T I M E /GMT/			Per.	Amplitude		Distance (Δ°) D km.	R E M A R K S
			h	m	s		A N	A E		
85	8	e	12	13	38				USCGS: Banda Sea 5.5 S., 129.8 E. H= 11 55 39 h=165 km. Mag. 6.5 /CGS/	
		e		14	06					
		e/PP/			27					
		i		21	40					
		e		29	19					
86	9	e/PKP/	16	59	05				USCGS: New Hebrides Islands 15.5 S., 167.6 E. H= 16 39 49.3 h=121 km. Mag. 7 $\frac{1}{2}$ /PAS/	
		e			17					
		i	17	00	12					
		i		01	31					
		i		02	48					
		oL		30	12					
		oL		47	28					
87	17	iPb	02	36	07				USCGS: Southern Greece 38.2 N., 23.7 E. H= 02 34 26.9 h=150 km. Mag. 5.4 /CGS/ 597 633	
		i			21					
		i			54					
		iSb		37	21					
		e			26					
		M			28					
		M			53					
F		54								
88	18	e	03	42	15				USCGS: Dodecanese Islands 36.3 N., 26.1 E. H= 03 40 21.5 h=115 km. Mag. 4.9 /CGS/	
		iPb			38					
		i			45					
		eSn		43	49			798		
		M		44	15			870		

Seism. Station Sarajevo

JULY 1964

No	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ) D km.
			h	m	s		A N	A E	
89	24	eP ePcP e/S/ eL	07	03	10 17 24 45			81°8	USCGS:Kurile Islands 46.9 N., 153.9 E. H= 06 50 52.8 h ≈ 33 km. Mag. 6 /PAS/
90		e eS eL	08	29	53 21 15				USCGS:Kurile Islands 47.2 N., 153.8 E. H= 08 12 40.0 h ≈ 33 km. Mag. 6 $\frac{1}{2}$ /PAS/ 2
91		eP e e eS eL	17	15	06 34 33 13 24				USCGS: Rep. Kurile Islands 47.1 N., 153.6 E. H= 17 02 49.2 h ≈ 33 km. Mag. 6 $\frac{1}{2}$ /PAS/
92	25	e e	19	49	55 16				USCGS:Northern Chile 27.9 S., 70.9 W. H= 19 31 07.0 h ≈ 26 km. Mag. 6 $\frac{1}{2}$ /PAS/

Seism. Station Sarajevo

NOVEMBER 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ) D km.	R E M A R K S
			h	m	s		A N	A E		
123	2	e/P/ i i	23	01 02 03	27 29 25				USCGS: Northern Italy 44.3 N., 11.6 E. H= 22 59 35.3 h ≈ 33 km. Mag. 4.3 /CGS/	
124	17	ePKP e eL	08	34 36 19	35 34 25				USCGS: New Britain region 5.7 S., 150.7 E. H= 08 15 39.3 h ≈ 45 km. Mag. $7\frac{1}{4}$ /PAS/	
125	19	e e eL	23	54 56 18	43 27 09				USCGS: New Britain region 6.0 S., 150.8 E. H= 23 35 06.0 h ≈ 33 km. Mag. $6\frac{3}{4}$ /PAS/	
126	24	e P e	12	03 04	45 03				SAR	
127		eP e ePP eSKS eL	12	54 55 57 04 34	08 17 44 38 45			92°8	USCGS: Philippine Islands 13.1 N., 124.7 E. H= 12 40 51.4 h ≈ 5 km. Mag. 6.1 /CGS/	

Seism. Station Sarajevo

DECEMBER 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ°) D km.	R E M A R K S	
			h	m	s		A N	A E			
128	9	ePn	18	29	33	SAR			380	USCGS:Albania-Yugo- slavia border 41.1 N., 21.0 E. H= 18 28 38.2 h = 30 km. Mag. 4.8 /CGS/	
		ePb*			39						
		ePg			43						
		e			48						
		eRiPS			30						14
		eSb*			28						
		eSg			32						
M	31	41									
129	9	ePn	19	07	13	SAR			USCGS: Greece-Albania border region 40.9 N., 20.6 E. H= 19 06 16.9 h = 23 km. Mag. 4.9 /CGS/		
		ePb*			20						
		e			31						
		eSb*			08					04	
		eSg			20						
130	10	eP	15	23	28				USCGS:Eastern Sea of Japan 40.4 N., 138.9 E. H= 15 11 05.5 h = 33 km. Mag. 6.0 /CGS/		
		ePoP			36						
		e/S/			33					22	
		eL			55					23	
131	15	e/Pn/	08	22	16						
		e			31						
		e			23					14	
		sSn			21						

Seism. Station Sarajevo

DECEMBER 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ°) D km.	R E M A R K S
			h	m	s		A N	A E		
132	15	e/P/	21	06	16				980	USCGS:Turkey, Felt at Bursa 40.0 N., 28.9 E. H= 21 03 15.9 h : 33 km. Mag. 4.9 /CGS/ Repeat N ^o 18
		eS		07	11					
		e			42					
133	23	e/Pn/	21	04	02					SAR
		eP*			08					
		e			35					
		eSn			50					
		e		05	18					

Seism. Station Sarajevo

SEPTEMBER 1964

N ^o	Date	Phase	T I M E			Per. sec.	Amplitude		Distance (Δ°) D km.	REMARKS
			h	m	s		A N	A E		
103	1	eP e	18	33	13 30	SAR				
104	5	e PKP P e e e	21	10	06 50 11 09 12 28		SAR		4 ^o 6 511	
105	12	e ePKP i i e/SKSP/	22	26	57 27 24 42 31 50 41 19				USCGS: Auckland Islands region. 49.1 S., 164.2 E. H= 22 07 03.2 h 33 km. Mag. 7 ¹ / ₂ /PAS/	
106	13	ePn ePg i/S PKP /S* iSg i e	22	54	09 18 42 48 50 55 11	SAR		2 ^o 3 254		
107	15	eP ePcP e iS i/PS/	15	40	59 41 19 44 07 50 14 49				72 ^o 2 USCGS: Nicobar Islands region 8.9 N., 93.1 E. H= 15 29 32.2 h 37 km. Mag. 5 ¹ / ₂ /PAL/	

Seism. Station Sarajevo

SEPTEMBER 1964

No	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ) D km.
			h	m	s		A N	A E	
108	18	e	00	11	39				
		e			57				
		i/Sn/		12	08				
		i		13	48				
		e		15	04				
		M F		29	-				
109	25	e	12	29	52			Traces	
		e		30	05				
		e			18				
110	30	e	04	43	06			USCGS: Crete 34.5 N., 23.4 E. H= 04 39 44.0 h ~ 43 km. Mag. 4.6 /CGS/	
		e			20				
		i			41				
		i/RsF/			53				
		i		44	32				

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 Raport Macro-seismic
/Bosnia and Hercegovina/

Seism. Station Sarajevo

July 1964

No	Date	T I M E /GMT/		District	Locality	Intensity /Merealli- Sieberg/ MCS°	REMARKS
		h	m				
1	17	02	36	Trebinje		IV-V	

August 1964

1	18	00	34	Brišnik	Duvno	V	It was under- ground thunder before the earthquake ep: Brišnik 43°38' N., 17°14' E.
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Izdaje: Republički hidrometeorološki zavod (Seiznološka stanica)

Uredjuje: Jankević Ing. Miloš

Umnoženo: u Republičkom hidrometeorološkom zavodu u Sarajevu 1966 god.

Seism. Station Sarajevo

OCTOBER 1964

No	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ°) D km.	REMARKS
			h	m	s		A N	A E		
114	16	eP e/S/ eSKS eL	07	12	01 23 00 23 10 45 15				USCGS: Kurile Islands 44.3 N., 149.5 E. H= 06 59 38.6 h \approx 33 km. Mag. 5.5 /CGS/	
115		e	08	31	18				USCGS: Kurile Islands 44.6 N., 149.4 E H= 08 18 28.3 h \approx 33 km. Mag. 5.2 /CGS/	
116		e/P/ e eS	09	30	38 33 08 40 55				USCGS: Kurile Islands 44.5 N., 149.1 E. H= 09 18 16.6 h \approx 33 km. Mag. 5.4 /CGS/	
117	17	ePn eRsP eSn e	09	52	59 53 44 54 58 56 10			1.143	USCGS: Crete 35.0 N., 25.4 E. H= 09 50 29.5 h \approx 33 km. Mag. 4.8 /CGS/	
118	20	e	08	25	46					

Seism. Station Sarajevo

OCTOBER 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance (Δ°) D km.	REMARKS
			h	m	s		A N	A E		
119	21	eP e eS e eL	23	19	29 59 27 33 47				60°	USCGS:India-China border region 28.1 N., 93.8 E H= 23 09 18.8 h ≈ 37 km. Mag. 5.9 /CGS/
120	23	eP e i eS eL	02	06	47 52 07 15 27					USCGS:Nord Atlantic Ocean 19.8 N., 56.0 W. H= 01 56 03.2 h ≈ 31 km. Mag. 6 $\frac{3}{4}$ /PAS/
121	27	ePn i iPb iRsPS i iSb M ₁ M ₂	19	47	17 20 22 58 06 24 44 55				4.3 480	USCGS:Eastern Austria 47.8 N., 16.1 E. H= 19 46 12.0 h ≈ 39 km. Mag. 5.6 /CGS/
122	29	iP i iRiP iS M F	04	36	25 27 28 47 53 41				165	USCGS: Yugoslavia 43.4 N., 19.7 E. H= 04 36 01 h ≈ 33 km.

Hydrometeorological Institute
Seismological Station
SARAJEVO, Grdonj 36
Yugoslavia

SEISMOLOGICAL BULLETIN

Coordinates: 43° 52,4 N Lat; 18° 25,7 E Long						
Height : 725 m.						
Ground : Lime - stone /Trias/						
Instruments	Comp.	To sec.	v:1	V	r/2 To	Recording speed mm/min.
Mainka, M=450 kg.	E-W	10,0	3,6	141,2	0,021	57 - 60
Mainka, M=450 kg.	N-S	10,0	2,7	130	0,036	57 - 60

I seismographic registrations

JANUARY 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
1	1	eP e e/S/ eL	17	39	08 44 34 18 16 28				USCGS: Kurile Islands 45,4N., 151,9 E H= 17 26 43,5 h ≈ 45 km. Mag. 6 /Pal/	
2	2	iP i iS	21	54	26 28 30			33	SW from Sarajevo	
3	6	i	14	25	04				Local	
4	9	eP e ePP eS	18	44	07 45 18 54 13				USCGS: Kurile Islands 45,5N., 150,9 E H= 18 31 52,4 h ≈ 40 km. Mag. 5.6 /CGS/	

Seism. Station Sarajevo

JANUARY 1964

No	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
5	18	eP	12	17	03				USCGS: Taiwan 110 dead 479 injured H= 12 04 40 h ≈ 33 km. Mag. $6\frac{3}{4}$ /Pas/	
		b			33					
		ePP			20 15					
		e			21 32					
		e			28 08					
		eL			36 22					
6	20	e	17	28	04				USCGS: Loyalti Islands region 20,7 S., 169,9 E H= 17 08 37,4 h ≈ 141 km. Mag. 6.1 /CGS/	
		e			25					
		e			29 14					
7	26	ePP	09	27	18			99°	USCGS: Southern Peru 6 injured 16,3 S., 71,7 W H= 09 09 33,9 h ≈ 116 km. Mag. 6.1 ± 0.3 /CGS/	
		e			29 30					
		e			33 43					
8	28	iP	14	16	36				USCGS: Hindu Kush Northwestern Pakistan 36,5 N., 70,9 E H= 14 09 17,1 Mag. 6.1 ± 0.4 /CGS/	
		i			17 17					
		i			19 15					
		i/S/			22 34					
		i			23 39					
		e			25 40					

Seism. Station Sarajevo

JANUARY 1964										
N ^o	Date	Phase	T I M E			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A _N	A _E		
9	30	eP	17	48	32					USCGS: Near Southwest coast of Turkey 37,3 N., 29,9 E. H= 17 45 54,6 h ≈ 41 km. Mag. 5.3 [±] 0.2 /CGS/
		e		49	11					
		e		51	10					
		M		53	06					
		F	18	03	27					
FEBRUARY 1964										
10	5	eP	11	42	39					USCGS: Central Honshu, Japan. Felt: Tokyo 36,5 N., 141,0 E H= 11 30 15,7 h ≈ 46 km.
		e		43	03					
		e		46	07					
		e		53	10					
11	6	eP	13	19	28					USCGS: Kodiak Islands region 55,7 N., 155,8 W. H= 13 07 25,2 h ≈ 33 km. Mag. 6 ³ / ₄ -7 /Pas/
		e			38					
		e		22	13					
		eSKS	29	49						
		M ₁	14	01	16					
M ₂		02	38							
12	12	e	22	52	55					USCGS: Samoa Islands region 15,3 S., 174,4 W. H= 22 33 59,2 Mag. 5 ³ / ₄ /Bks/
		e		53	58					

Seism. Station Sarajevo

FEBRUARY 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
13	14	e e e	20	05 07 08	54 14 02					
14	17	iP iS	03	12	18 31			110	Stolac region Felt in Stolac	
15		e e/S/ e	20	21 22 23	28 36 32			890	USCGS: Switzerland Slight damage in Unterwalden 47,2 N., 8,5 E. H= 12 19 02,9 h ≈ 33 km. Mag. 4.6 /CGS/	
16	23	ePn eRsP i iRsPS ₂ iRsS M ₁ M ₂ F	22	42 43	21 39 14 33 47 59 00 53			530	USCGS: Aegean Sea Felt: Athens, 39,2 N., 23,7 E. H= 22 41 06,3 h ≈ 33 km. Mag. 4.5±0.2 /CGS/	
17	24	ePn e e	23	31 32	42 20 45				USCGS: Aegean Sea 39,2 N., 23,8 E. H= 23 30 24,6 h ≈ 16 km. Mag. 4.4 /CGS/	

Seism. Station Sarajevo

FEBRUARY 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
18	27	eP	01	38	09				370	
		e/R _s P/			24					
		e			39 19					
		e			40 02					
19		eP	15	21	20					
		e			49					
		e			22 01					

MARCH 1964

20	10	e/P/	11	53	36					
		e			54					
		e			59					
21	14	eP _n	02	39	27				USCGS: Switzerland Slight damage in central Switzerland. 47,1 N., 8,3 E. H= 02 37 24,6 h ≈ 33 km. Mag. 4.7 [±] 0.4 /CGS/	
		i			40 28					
		e			41 11					
		e			21					
22	15	eP	22	35	12				USCGS: Gibraltar 36,2 N., 7,6 W. H= 22 30 26,0 h ≈ 27 km. Mag. 6 ³ / ₄ -7 /Pas/	
		i			18					
		i			32					
		i			37 04					
		i/S/			39 13					
		e			40 19					
M	45 17									

Seism. Station Sarajevo

MARCH 1964

N ^o	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	R E M A R K S
			h	m	s		A N	A E		
23	18	iP ₀	16	44	25				355	
		iS _n			57					
		e			45 11					
		e			27					
24	28	iP	03	47 53					USCGS: Alaska 61,1 N., 147,6 W. H= 03 36 12,7 h ≈ 20 km. Mag. 8.4 /Pas/	
		i		48 05						
25		eP	10	47 44					USCGS: Rep. Alaska 57,2 N., 152,4 W. H= 10 35 38,9 h ≈ 33 km. Mag. 6.3 /Pas/	
		eS		57 42						
26		e	12	32 59					Rep. Alaska	
		eS		43 11						
27		eP	14	59 31					USCGS: Rep. Alaska 60,4 N., 146,5 W. H= 14 47 37,1 h ≈ 10 km. Mag. 6.3 /Pas/	
		e		15 05 24						
		eS		09 07						
		e		11 23						
28		e	20	41 07					USCGS: Rep. Alaska 59,8 N., 148,7 W. H= 20 29 08,6 h ≈ 40 km. Mag. 6.6 /Pas/	
		eS		50 46						

Seism. Station Sarajevo

MARCH 1964

No	Date	Phase	T I M E /GMT/			Per. sec.	Amplitude		Distance D km.	REMARKS
			h	m	s		A N	A E		
29	30	eP eS	02	30	40				USCGS: Rep. Alaska 56,6 N., 152,9 W. H= 02 18 06,3 h ≈ 25 km. Mag. 6.6 /Pas/	
30		e e	03	30	24					
				33	16					
31		eP e e/S/	07	21	20				USCGS: Rep. Alaska 59.9 N., 145,7 W. H= 07 09 34,0 h ≈ 15 km. Mag. 6.2 /Pas/	
				22	30					
				31	09					
32		eP _n iP _b e e eS _n M	23	48	02					
					05					
					11					
					27					
					33					
					53			232		

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 Raport Macro-seismic
/Bosnia and Hercegovina/

Seism. Station Sarajevo

JANUARY 1964

No	Date	T I M E /GMT/		L O C A L I T Y	Intensitet /Mercalli- Sieberg ^o /	REMARKS
		h	m			
1	18	04	25	Travnik	V	
	19	23	15	Travnik	IV	
						FEBRUARY 1964
1	17	03	12	Stolac	IV	

Izdaje: Seizmološka stanica Sarajevo, Grdonj 36

Uredjuje: Miloš Janković, Seizmološka stanica Sarajevo

Umnoženo u Seizmološkoj stanici Sarajevo