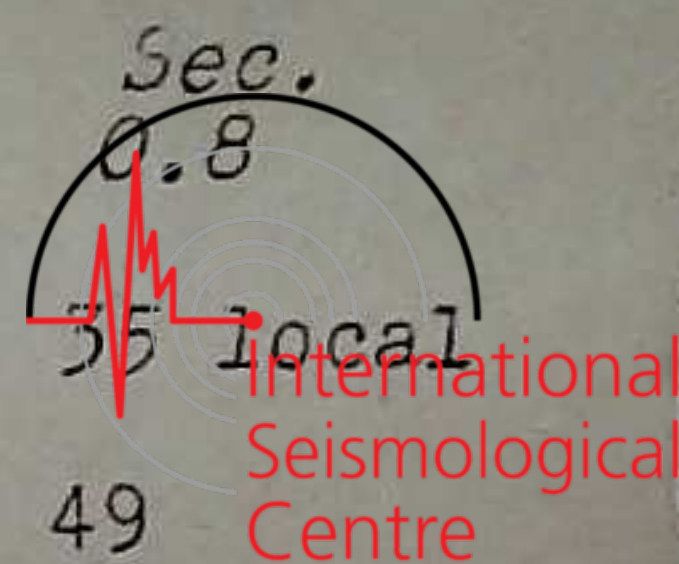




Date	Time	Phase	Micr.	Sec.	Notes
1 Jan 57	1P	01 08	50	0	
	1	01 09	17		
	ePP	01 12	28		
	+1P	01 08	47		
	+PZ		0.2	0.8	
	PZ		0.14		
2 Jan	eP	00 58	39		
	eS	01 00	14		
	+1P	00 58	34		
	+1S	01 00	03		
2 Jan	1!P	02 30	58		
	1PP	02 34	43		
	ePS	02 43	30		
	ePKKS	02 51	-		
	eLR	03 02	-		
	+1P	02 30	53		
	+1!PP	02 34	37		
	+1	02 43	06		
	+PZ		0.3	1,0	
2 Jan	1P	03 26	12		
	1	03 26	34		
	1PP	03 29	55		
	+iP	03 26	09		
	+1	03 29	48		
	+1	03 43	52		
	+1	03 54	25		
2 Jan	e	04 02	04		
	1!P	04 02	07	D	
	1PP	04 05	56		
	1PPP	04 08	01		
	e	04 13	22		
	eS	04 14	20		
	eLR	04 33	-		
	+eP	04 02	00		
	+ePP	04 05	47		
	PZ		1,4	2,0	
	+PZ		2,2	1,6	
2 Jan	1!P	04 16	49	C	
	1PP	04 20	35		
	1S	04 27	(15)		
	+1P	04 16	45		
	+1PP	04 20	23		
	PZ		0.4	2	
	+PZ		0.1	1,8	
2 Jan	1P	11 02	52		
	+1P	11 02	49		
	+1	11 03	03		
2 Jan	1P!	11 07	59	local	
2 Jan	1P	13 00	27		
	+iP	13 00	25		
	+PZ		0.08		
2 Jan	1P	14 16	35		
2 Jan	1P	20 59	49		
	1S	21 00	29		
	+1P	20 59	39		
	+1S	21 00	07		
3 Jan	1P	00 54	20,5	C	
	+1P	00 54	19		
	+PZ		0.13	1,0	
3 Jan	1P	07 39	34		
	+1P	07 39	35		
3 Jan	1!P	12 58	56	C	
	1pP	13 00	56		
	1PP	13 01	48		
	1	13 02	19		
	1	13 03	38		
	1!S	13 07	33		
	1	13 08	20		
	1	13 10	20		
	1	13 16	44		
	1!PKKP	13 19	16		
	eSKKS	13 26	30		
	e(PPP)	13 29	10		
	+iP	12 58	53		
	+1pP	13 00	51		
	PZ		0.5	1,7	
	PPZ		11	4	
3 Jan	1!P	13 53	58	C	
	1	13 54	13		
	1	13 56	51		
	+1P	13 53	56		
	PZ		0.14	0.8	
3 Jan	1P	15 58	24	local	
4 Jan	1P	02 01	32		
	+1P	02 01	32		
	+PZ		0.15	1,0	
4 Jan	1P	03 10	33	D	
5 Jan	1P	08 32	23		
	1S	08 33	37		
	+1P	08 32	21		
	+1S	08 33	28		
	PZ		0.06	0.8	
5-7 Jan	Large microseisms				
	mean amplitude	am=0.3		Micr.	
	mean period	tm=2		Sec.	

1 Jan	1P	02	20	59 local				
	1S	02	21	24		+PZ	Micr. 0.08	Sec. 0.8
	+1P	02	20	38				
	+1S	02	20	48,5	2 Jan	1P	14	16
2 Jan	1P	00	52	42	2 Jan	1P	20	59
	ePP	00	56	39		1S	21	00
	+1P	00	52	39		+1P	20	59
	+1PP	00	56	25		+1S	21	00
					3 Jan	1P	00	54
	PZ	Micr. 0.14		Sec. 1,4		+1P	00	54
2 Jan	eP	00	58	39			Micr. 0.13	Sec. 1,0
	eS	01	00	14		+PZ		
	+1P	00	58	34	3 Jan	1P	07	39
	+1S	01	00	03		+1P	07	39
2 Jan	1!P	02	30	58	3 Jan	1!P	12	58
	1PP	02	34	43		lpP	13	00
	ePS	02	43	30		1PP	13	01
	ePKKS	02	51	-		1	13	02
	eLR	03	02	-		1	13	03
	+1P	02	30	53		1!S	13	07
	+1!PP	02	34	37		1	13	08
	+1	02	43	06		1	13	10
						1	13	16
	+PZ	Micr. 0.3		Sec. 1,0		1!PKKP	13	19
2 Jan	1P	03	26	12		eSKKS	13	26
	1	03	26	34		e(PPP)	13	29
	1PP	03	29	55		+1P	12	58
	+iP	03	26	09		+lpP	13	00
	+1	03	29	48				
	+1	03	43	52		PZ	Micr. 0.5	Sec. 1,7
	+1	03	54	25		PPZ	11	4
2 Jan	e	04	02	04	3 Jan	1!P	13	53
	1!P	04	02	07 D		1	13	54
	1PP	04	05	56		1	13	56
	1PPP	04	08	01		+1P	13	53
	e	04	13	22				
	eS	04	14	20		PZ	Micr. 0.14	Sec. 0.8
	eLR	04	33	-	3 Jan	1P	15	58
	+eP	04	02	00				24local
	+ePP	04	05	47	4 Jan	1P	02	01
						+1P	02	01
	PZ	Micr. 1,4		Sec. 2,0				
	+PZ	2,2		1,6		+PZ	Micr. 0.15	Sec. 1,0
2 Jan	1!P	04	16	49 C	4 Jan	1P	03	10
	1PP	04	20	35				33 D
	1S	04	27	(15)	5 Jan	1P	08	32
	+1P	04	16	45		1S	08	33
	+1PP	04	20	23		+1P	08	32
						+1S	08	33
	PZ	Micr. 0.4		Sec. 2				
	+PZ	0.1		1,8			Micr. 0.06	Sec. 0.8
2 Jan	1P	11	02	52	5-7 Jan	Large microseisms		
	+1P	11	02	49		mean amplitude	am=0.3	Micr.
	+1	11	03	03		mean period	tm=2	Sec.
2 Jan	1P!	11	07	59 local				
2 Jan	1P	13	00	27				
	+iP	13	00	25				



Date	Time	Mag	Depth (km)	Distance (km)	Location	Time	Mag	Depth (km)	Distance (km)	Location
6 Jan	1P	14	51	29	local					
	+1P	14	50	25						
	+1S									
						PZ	Micr	0.1		Sec.
										0.8
6 Jan	1P	22	38	40		12 Jan	1P	05	33	57 local
	1!	22	38	43			1S	05	34	02
	1S	22	40	10			+1P	05	34	16
	+1P	22	38	43			+1S	05	34	33
	+1S	22	40	04		12 Jan	+1P	05	57	16
7 Jan	1P	02	24	28			+1	05	58	04
	1PP	02	26	37		12 Jan	1	12	00	06
7 Jan	1P	19	42	57	small		1	12	00	35
	+1P	19	42	40			+1P	11	57	48
	+1S	19	42	46			+1	11	59	48
8 Jan	eP	01	31	23			+1	12	00	01
	1	01	31	30		12 Jan	1P	12	39	41,5 local
8 Jan	1P	03	47	17			1S	12	39	46
	+1P	03	47	18			+1P	12	39	58
							+1S	12	40	15,5
	+PZ	Micr.		Sec.		13 Jan	1P	15	46	31 local
		0.05		0.7		14 Jan	1P	00	17	47
8 Jan	1P	05	33	32			1S	00	20	08
	+1P	05	33	35			+1P	00	17	50
8 Jan	+1P	10	30	53	D		+1S	00	20	10
	+1	10	31	35		14 Jan	1PKP	14	39	02 C
							1!	14	39	07
	+PZ	Micr.		Sec.			1	14	41	17
		0.2		0.7			+1PKP	14	39	04
8 Jan	1P	12	15	59						
8 Jan	1!P	14	23	20	local	14 Jan	+1P	23	12	42
8 Jan	1P	15	25	02	local		+1	23	13	22
9 Jan	+1P	01	51	23	D		+1	23	17	12
9 Jan	+ 1P	08	06	03		15 Jan	1P	17	59	02
9 Jan	e	08	47	-			1S	18	00	20
9 Jan	+1P	10	23	05			+1P	17	58	57
9 Jan	1P	10	40	17	D		+1S	18	00	10
9 Jan	+ 1P	11	26	28		15 Jan	1P	20	34	32
	+1(S)	11	27	15			+1P	20	34	31 D
9 Jan	1P	14	10	36	local	16 Jan	1P	11	52	35
9 Jan	1P	22	19	22			e	12	09	58
	+1P	22	19	25			+1P	11	52	40
						16 Jan	1P	17	34	04D local
	+PZ	Micr.		Sec.		16 Jan	1P	20	56	02 C
		01		0.9		17 Jan	1LR	16	56	51 C
10 Jan	1P	04	25	03						
	1	04	25	18						
	+1P	04	25	06						
10 Jan	+ 1P	06	22	10			LRZ	Micr.		Sec.
	+1	06	22	24				0.03		0.6
10-11 Jan	Microseisms: T _m = 2 Sec.					17 Jan	1P!	22	38	35 C
	am = 0.15 Micr.						e	22	39	56
10 Jan	1P	15	25	22			1PP	22	41	29
11 Jan	1P	11	07	40	local					
12 Jan	1!P	03	16	46	D					
	1S	03	17	55						
	+1P	03	16	37						
	+1S	03	17	34						
18-19 Jan	Masked by microseisms									
20 Jan	1P	13	13	09						
	1	13	14	10						



Date	Time	Phase	1st	2nd	3rd	Notes	Date	Time	Phase	1st	2nd	3rd	Notes
20 Jan	1P	1	18	19	28 C		29 Jan- 2 Feb						Masked by microseisms
			18	20	18								$T_m = 2 \text{ sec.}$ $a_m = 0.5 \text{ Micr}$
22 Jan	eIP	01	33	36	Small		29 Jan	1P	11	05	12	12b	International Geophysical Centre
	1S	01	37	20			29 Jan	1P	16	24	13	13	
	1LR	01	39	28				1!	16	24	25	25	
22 Jan	1P	11	25	35	C			1!S	16	28	05	05	
	1PP	11	27	06			30 Jan	1(P)	15	48	58	58	
	eS	11	30	29				1	15	49	14	14	
	e	11	36	48			31 Jan	1P	21	35	42	42	
	e	11	37	20				1S	21	37	53	53	
	PZ	Micr.			Sec.		2 Feb	1P	00	31	06	06	local
		0.15			1,4		3 Feb	1P	05	44	55	55	local
22 Jan	1P	15	10	21	local		3 Feb	1!P	12	39	57	57	
23 Jan	1P	06	53	39	local			1!S	12	40	02	02	
23 Jan	1P	15	43	52	local		3 Feb	1P	17	30	03	03	C
23 Jan	1P	17	29	49				1S	17	31	19	19	
	1S	17	31	55			3 Feb	1P	17	37	14	14	
	PZ	Micr.			Sec.			e	17	40	(21)	(21)	
		0.03			0.5			l	17	57	35	35	
23 Jan	1P	18	00	20				eL	18	09	-	-	
	1	18	00	31				e	18	14	-	-	
23 Jan	1P	22	07	40			3 Feb	1P	23	10	48	48	
24 Jan	1P	01	16	02			5 Feb	1P	04	21	23	23	C
	1	01	17	15				1	04	22	33	33	
	1	01	29	41				PZ	Micr.				Sec.
24 Jan	1P	16	00	15					0.2				1,2
24 Jan	eIP	19	45	04			5 Feb	1P	05	02	34	34	
25 Jan	1P	13	06	10	local		5 Feb	1P	13	59	03	03	local
25 Jan	1P	14	39	59				1S	13	59	08	08	
	1	14	40	58			5 Feb	1P	15	22	08	08	
25 Jan	1P	17	12	17				1S	15	23	26	26	
	1	17	12	43			5 Feb	1P	18	55	17	17	
26 Jan	1P	09	10	24				1S	18	56	36	36	
	1	09	10	38			5 Feb	1P	14	41	57	57	
26 Jan	1P	16	33	45	C			1S	14	43	15	15	
	1S	16	36	28			5 Feb	iP	14	54	47	47	
	1	16	39	37				iS	14	56	05	05	
	PZ	Micr.			Sec.		6 Feb	1P	18	33	22	22	Small
		0.5			2			1	18	35	38	38	
26 Jan	1P	21	45	34C	local		6 Feb	1P	19	24	30	30	
	1S	21	45	40				1	19	26	07	07	
27 Jan	1P	00	10	35	local			1	18	26	20	20	
								e	19	29	50	50	
27 Jan	1P	12	17	49	C		6 Feb	1P	20	44	24	24	D
27 Jan	1P	14	16	06	C			1	20	46	22	22	
								e	20	47	42	42	
28 Jan	1P	05	35	40				e	20	56	40	40	
28 Jan	1(P)	08	40	13				PZ	Micr.				Sec.
28 Jan	1P	11	35	15					0,2				1,5
28 Jan	1P	18	02	31			6 Feb	1P	21	26	28	28	
28 Jan	1P	23	31	25				1	21	31	48	48	



6 Feb	1P	22	38	10 small	16 Feb	1!P	03	02	16 D
	e	22	39			1!S	03	02	13,5
	1	22	40						
	1	22	41		16 Feb	1P	07	37	51
7 Feb	1P	13	01	17	16 Feb	1P	13	12	57
	1	13	02	34	16 Feb	1P	14	23	46 C
7 Feb	1P	15	36	47		PZ	Micr.		Sec.
	1	15	37	27			0.08		0.6
	1	15	38	54	17 Feb	1P	16	06	09
7 Feb	1P	21	55	04	18 Feb	e	07	40	24
	1S	21	57	07	18 Feb	1P	15	00	50
7 Feb	1P	23	48	47	19 Feb	1(P)	05	16	54
	1	23	49	16	19 Feb	1!P	07	46	48
	1	23	51	05		iS	07	48	56
8 Feb	1P	00	36	13	19 Feb	1P	11	58	21
9 Feb	1P	01	41	42	19 Feb	1P	20	11	19
	1S	01	43	22	20 Feb	1P	04	46	02,5 C
9 Feb	1P	13	48	57		1	04	46	20
	1	13	49	09		eS	04	50	08
	1	13	49	50	20 Feb	1P	13	12	05 D
9 Feb	1P	18	15	56	20 Feb	1P	20	32	42
	1!	18	16	02	20 Feb	1P	22	08	46
						1	22	09	07,5 C
						1!	22	09	31
10 Feb	1P	05	57	52 C	20 Feb	e	22	37	58
	1	05	57	59	21 Feb	eP	01	19	12
	1	05	58	13	21 Feb	1P	13	56	23 local
10 Feb	1!P	22	44	48 D		1S	13	56	31
	1(PcP)	22	45	29	21 Feb	1P	14	43	10
	1	22	46	43		1	14	43	40
	eS	22	55	35		e	14	47	20
	PZ	Micr.		Sec.					
		1,3		2,0					
10 Feb	1!P	23	03	46 C					
	1	23	03	47					
	1	23	04	21					
	eS	23	14	10					
	eLR	23	25	45					
	PZ	Micr.		Sec.					
		1,1		2,0					
11 Feb	1P	01	27	25					
	1	01	27	35					
	eS	01	38	06					
	eL	02	03	-					
11 Feb	1P	14	38	22 C					
	1	14	38	36					
11 Feb	1P	18	09	31					
13 Feb	1PKP	00	43	34 C					
	1	00	42	43,5					
13 Feb	1P	02	43	24					
	1S	02	43	51					
15 Feb	e1	18	02	29					

A. Shlanger.

GEOLOGICAL SURVEY
Ministry of Development
Hebron Road
JERUSALEM
(Israel)



Jerusalem, September 3rd, 1957.

Gentlemen,

We beg to inform you that the Seismological Survey of Israel has been transferred from the Research Council of Israel to the Geological Survey of the Ministry of Development.

Please mail in future, all your correspondence to the following address :

Geomorphology & Quarternary Research Department,
GEOLOGICAL SURVEY
Hebron Road
JERUSALEM (Israel).

Sincerely yours,

N. Shalem

Dr. N. Shalem,

Geomorph. & Quat. Research Dept. Director.

NS/OA.

BULLETIN No. 45

April 25th / August 11th, 1957

Jerusalem Provisional Readings



GEOLOGICAL SURVEY
Ministry of Development
Hebron Road
Jerusalem
ISRAEL

20.8.57

25	April	iP	08	24	18	
"	"	iS	08	25	33	
"	"	iP	11	19	08	
"	"	iP	14	20	50	C
"	"	iP	16	24	42	
"	"	iS	16	25	55	
"	"	iP	21	29	35	
"	"	iS	21	30	35	
26	"	iP	06	35	17	D
"	"	iS	06	36	30	
"	"	iP	15	18	49	
"	"	i	15	20	48	
"	"	iP	16	10	51	
"	"	iS	16	12	05	
27	"	iP	00	22	32	
28	"	i!P	01	36	35	D
"	"	i	01	40	01	
"	"	eS	01	47	30	
"	"	eLR	02	05	-	
"	"	PZ		Micr 0,2	Sec 1,1	
29	"	iP	02	08	04	
"	"	iS	02	08	29	
"	"	iP	21	08	08	
"	"	iP	21	40	47	
"	"	iS	21	42	03	
"	"	i!P	22	00	27	C
"	"	iS	22	01	40	
"	"	PZ		Micr 0,03	Sec 0,4	
1	May	i!P	20	58	45	
"	"	iS	21	00	09	
2	"	i!P	03	06	09	D
"	"	PZ		Micr 0,7	Sec 1,5	
"	"	ePKP ₂	10	54	08	
"	"	i	10	54	55	

26	May	iP	09	42	55	
"	"	iS		45	23	
"	"	PZ		Micr 0,14	Sec 0,5	
27	"	iP	07	07	24	
"	"	iS	07	09	54	
"	"	iP	11	03	47	
"	"	i	11	03	54	
"	"	i	11	05	50	
"	"	iS	11	06	17	
"	"	PZ		Micr 10	Sec 2,0	
28	"	iP	00	12	07	
"	"	i	00	14	38	
"	"	iP	02	52	42	small
"	"	i(s)	02	54	10	
"	"	iP	05	36	02	
"	"	iP	06	00	47	
29	"	iP	10	05	49	
"	"	i	10	06	16	
"	"	i	10	08	15	
"	"	iP	10	20	05	
"	"	i	10	24	33	
"	"	i!P	18	41	59	C
"	"	iS	18	43	56	
"	"	PZ		Micr 0,3	Sec 0,7	
30	"	e	00	38	44	
"	"	i	00	43	34	
"	"	iP	14	32	10	
"	"	iP	20	00	53	
"	"	PZ		Micr 0,4	Sec 2,0	
"	"	iP	21	17	05	
"	"	i	21	19	21	
"	"	iP	23	17	19	
31	"	iPKP	02	34	00	
"	"	i	02	34	17	
"	"	i!P	22	30	32	
"	"	iPP	22	34	14	
"	"	i	22	41	28	
1	June	iP	05	29	11	
"	"	iS	05	31	41	
1	"	iP	21	10	33	
"	"	iS	21	13	03	
"	"	iP	01	14	17	

2	June	iS	01	16	47	
"	"	iP	21	34	20	
4	June	iPKP	17	23	44	D
"	"	i(PKP)	17	26	34	
"	"	i	17	32	16	
5	"	iP	09	22	15	
"	"	i	09	25	21	
"	"	eP	14	10	18	
"	"	e	14	20	39	
7	"	iP	02	59	45	
8	"	iPKP	17	31	53	
"	"	i	17	32	26	
"	"	i	17	38	56	
10	"	iP	02	44	05	
"	"	iP	04	51	52	
"	"	e(s)	04	56	32	
11	June	iP	04	17	13	
11	June	iP	05	03	17	
"	"	iPKP	15	09	31	
"	"	iPKS	15	13	01	
"	"	i	15	21	30	
"	"	i	15	23	27	
"	"	iP	19	01	20	
"	"	ipP	19	02	03	
"	"	e	19	11	06	
12	June	iP	08	40	34	
13	"	iP	10	53	51	
"	"	iPP	10	57	33	
"	"	eiS	11	04	45	
14	"	iP	06	37	30	
15	"	iP	00	55	19	
"	"	e	01	05	33	
"	"	eL	01	17	-	
16	"	iP	12	23	12	
"	"	iP	14	33	15	local
17	"	i(P)	12	40	04	
"	"	i	06	36	34	
"	"	i!PKP	06	36	38	D
"	"	i	06	37	04	
"	"	PKPZ		Micr 0,5	Sec 1,5	
18	June	iP	02	22	07	C
"	"	i!	02	22	25	



18	June	eL	02	Micr 1	46	Sec 1,8			
"	"	PZ							
"	"	iP	07		06		19		
"	"	iP	14	Micr 0,7	58	Sec 1,5	14		
"	"	PZ							
19	"	iPKP	01		49		37	D	
"	"	i	01		49		55		
"	"	eP	08		21		02		
"	"	iP	15		43		08	local	
20	"	iP	15		59		52	local	
"	"	iP	16		25		06		
21	"	iP	18		50		43		
"	"	i!	18		50		56		
"	"	iP	23		30		35		
"	"	e	23		31		23		
22	"	ePKP	06		37		05		
"	"	e	06		38		39		
23	"	iP	16		31		27	local	
"	"	iP	19		54		41		
"	"	eP	20		24		(28)	small	
"	"	i	20		26		11		
"	"	eL	20		30		08		
24	"	ePKP	10		21		41		
"	"	e	10		34		01		
25	"	iP	04		03		15	near	
"	"	iS	04		03		44		
"	"	iP	10		20		16		
"	"	i!P	17		36		44	local	
26	"	iP	03		51		04	small	
"	"	i	03		53		32		
"	"	iP	04		57		55		
"	"	i	04		58		05		
27	"	i!P	00		19		48	C	
"	"	iPP	00		22		13		
"	"	i!!!PPP	00		23		35		
"	"	i	00		25		06		
"	"	iS	00		28		17		
"	"	eLR	00		36		-		
"	"	PZ		Micr 6		Sec 3,0			
28	"	iP	18		00		23		
"	"	iP	21		29		47		

29	June	iP	08		01		40		
"	"	i	08		05		34		
1	July	iP	16		55		45	local	
"	"	iP	19		39		27	D	
"	"	ipP	19		39		46		
"	"	iPP	19		41		36		
"	"	iPcS	19		45		28		
"	"	eS	19		46		48		
"	"	eL	19		55		28		
"	"	e	19		59		-		
"	"	PZ		Micr 1,0		Sec 1,5			
2	"	i!P	00		46		01	D	
"	"	i!S	00		49		05		
"	"	eLR	00		50		31		
"	"	PZ		Micr 38		Sec 5			
"	"	iP	04		59		48		
"	"	i	04		04		35		
3	"	iP	02		00		10		
"	"	iPKP1	06		21		28		
"	"	iPKP2	06		21		33		
4	"	iP	08		55		51		
"	"	iP	08		40		25	D	
"	"	ipP	08		40		45		
"	"	iP	15		32		00	local	
6	"	iP	14		06		39		
"	"	iS	14		07		57		
"	"	iP	17		54		52	small	
7	"	iPKP	16		30		10		
"	"	iPP	16		31		31		
10	"	iP	20		16		24	local	
12	"	eP	22		24		13		
13	"	iPKP	09		51		29		
14	"	iPKP	08		30		02	C	
"	"	i	08		33		05		
"	"	PKPZ		Micr 0,7		Sec 1,5			
"	"	iPKP	10		01		48		
"	"	i	10		01		59		
"	"	iP	15		58		05	near	
"	"	iS	15		58		41		
"	"	iP	16		06		40		
16	"	iP	17		09		32		

17	July	iPKP	11	29	25	
"	"	i	11	29	57	
"	"	i!PP	11	31	45	
"	"	i	11	33	36	
17	"	iP	14	51	57	D local
"	"	iP	16	29	10	
"	"	iP	18	49	44	
18	"	i!P	08	34	22	D
"	"	i!S	08	34	46	
"	"	PZ		Micr 2	Sec 0,6	
"	"	<u>Safed</u> :	i!P	08	34	09
"	"		i!S	08	34	22
M = 4 1/2						
Felt in Jerusalem with intensity 2-3 Focus 80 kms NW of Haifa						
19	"	iP	13	13	53	
"	"	ipP	13	14	17	
"	"	iP	16	57	55	
"	"	i(s)	16	59	36	
20	"	i!P	05	28	08	
"	"	i!S	05	29	34	
"	"	iPKP	15	58	47	
21	"	eP	15	11	36	
"	"	i	15	13	59	
"	"	eP	19	56	54	
22	"	ePKP	06	36	47	
"	"	i!	06	36	55	
"	"	i	06	41	52	
23	"	iP	00	58	25	
"	"	eS	01	09	47	
"	"	e(PS)	01	11	01	
"	"	iP	13	49	11	
25	"	iP	07	55	40	
"	"	iP	14	18	00	local
"	"	iS	14	18	04,5	
26	"	iPKP	07	09	32	
27	"	iP	15	05	25	
28	"	eP	08	55	13	
"	"	ePKP	08	58	45	
"	"	iPP	08	59	46	
"	"	i	09	04	00	
"	"	i!PKKP	09	09	39	

28	July	i		10	58	
"	"	e	09	19	35	
"	"	09	09	33	-	
disturbance continues for two hours						
29	"	iP	01	20	40	near
"	"	iS	01	21	26	
"	"	iP	16	35	52	
"	"	i	16	36	42	
30	"	iP	17	34	04	
"	"	iS	17	44	40	
31	"	iP	01	46	03	
"	"	iS	01	49	29	
3	August	iP	08	35	46	
5	"	iP	00	20	52	
"	"	eLR	00	47	-	
7	"	iP	20	59	35	
8	"	iP	02	14	17	near
"	"	iS	02	15	45	
11	"	iP	00	39	38	
"	"	iP	00	12	27	
"	"	i	00	14	20	
"	"	eP	18	57	36	
"	"	e	19	00	12	

A. Schlanger,
Seismologist.

GEOLOGICAL SURVEY
Ministry of Development
Hebron Road
JERUSALEM
(Israel)



Jerusalem, September 3rd, 1957.

Gentlemen,

We beg to inform you that the Seismological Survey of Israel has been transferred from the Research Council of Israel to the Geological Survey of the Ministry of Development.

Please mail in future, all your correspondence to the following address :

Geomorphology & Quarternary Research Department,
GEOLOGICAL SURVEY
Hebron Road
JERUSALEM (Israel).

Sincerely yours,

N. Shalem

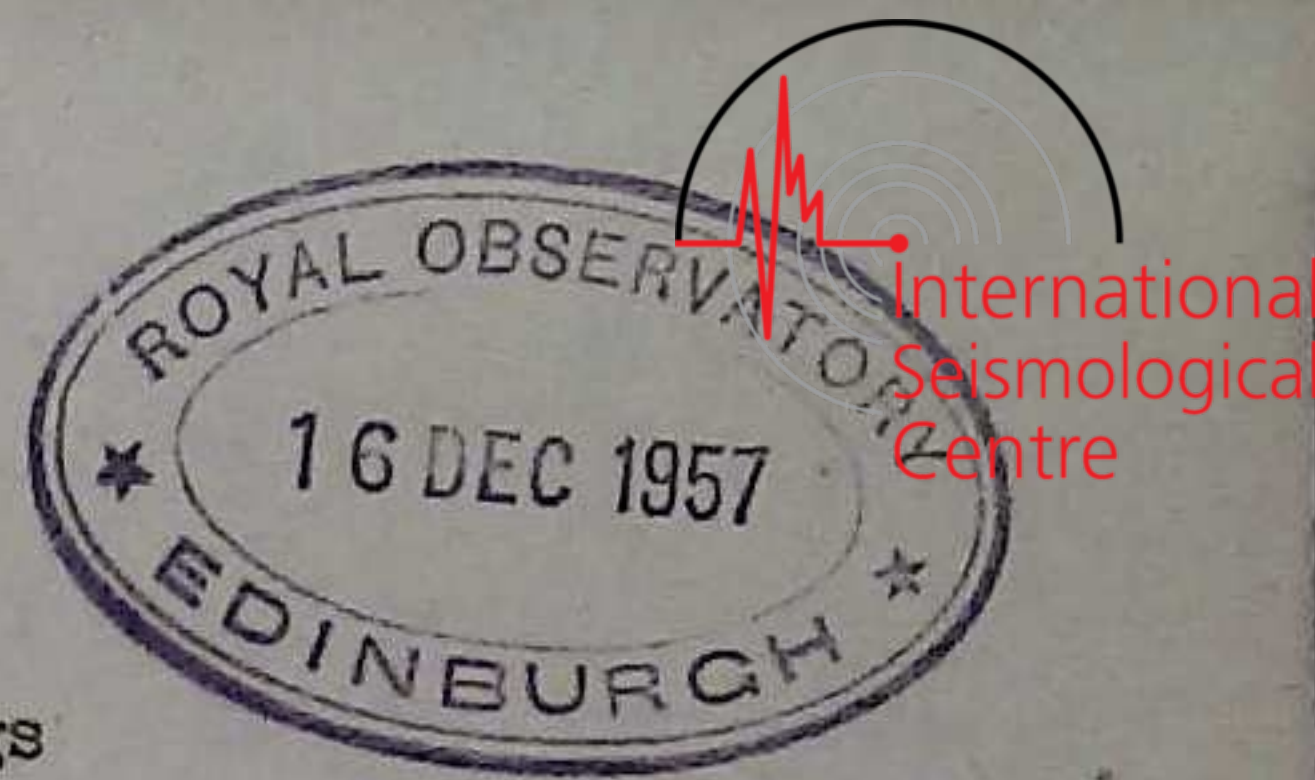
Dr. N. Shalem,

Geomorph. & Quat. Research Dept. Director.

NS/OA.



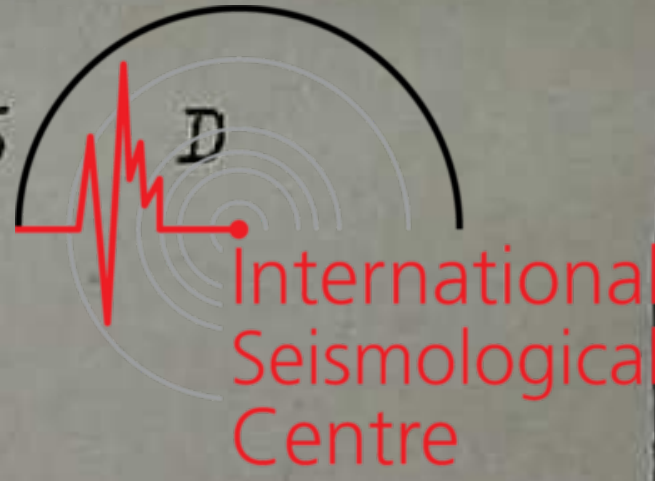
GEOLOGICAL SURVEY
 Ministry of Development
 Hebron Road
 JERUSALEM
 ISRAEL



Bulletin No. 46
 August 13 / October 15
 Jerusalem Provisional Readings

							25.9.57	
additional : 5.5.57		iP		19		30	03	
		i		19		32	25	
		i		19		32	47	
continuation:								
Aug.	13	iP		14		30	36	local
		iS		14		30	41	
	13	iP		16		02	45	D
	14	iP		02		46	12	
		iS		02		47	29	
		PZ	Micr 0.05			Sec 0.8		
	14	iP		05		16	31	
		iS		05		17	49	
	14	iP		03		13	09	
		iS		03		14	27	
	14	iP		08		46	44	
		iS		08		48	01	
	14	iP		09		49	22	small
		iS		09		50	39	
	14	i		18		46	19	
		iPKP!		18		46	24	
		i		18		47	19	
		PKPZ	Micr 0.3			Sec 1,2		
	14	iP		20		12	47	C
	15	iP		14		12	43	local
	15	iP		21		03	14	
		i		21		06	05	
		i		21		09	21	
	16	iP		10		41	20	local
		iS		10		41	25	
	16	iP		13		21	55	
		iS		13		22	11	
	16	ePKP		23		50	55	small
		e		23		52	14	
		e		23		02	20	
	17	iP		07		55	14	very small
		i		07		57	13	
	18	iP		03		23	10	
		iS		03		24	29	

18	eP	06	54	06	
18	iP	08	49	26	
	iPPP	08	54	20	
	iPPS	09	00	40	
	eL	09	19	-	
	PZ	Micr 0.14			Sec 1,5
18	i!P	21	55	00	D
	ePPP	22	00	15	
	e	22	15	40	
	MZ	22	39	-	
	PZ	Micr 0.3			Sec 1,0
19	iP	07	25	33	
	iS	07	29	30	
19	iP	21	45	16	
20	iP	15	27	00	
20	iP	22	40	48	
	ipP	22	40	55	
20	i	23	17	28	
21	iP	15	46	15	C
21	e	17	58	26	
21	eP	19	44	24	
	i	19	44	40	
22	iP	08	08	10	
22	iP	08	50	08	D
22	iPKP	17	02	51	
	e	17	06	12	
22	iP	17	08	12	
	iS	17	13	48	
	i	17	17	11	
23	iP	01	44	49	
25	iP	21	24	13	
26	iP	02	11	01	
	iS	02	12	19	
26	ePKP	11	46	43	
	i!	11	47	44	
	MLR	12	36	-	
26	iP	13	31	30	
26	iP	13	47	37	
26	MLR	15	15	-	
26	iP	16	36	34	local
	iS	16	36	46	
26	iP	17	25	03	
27	eP	11	59	42	small





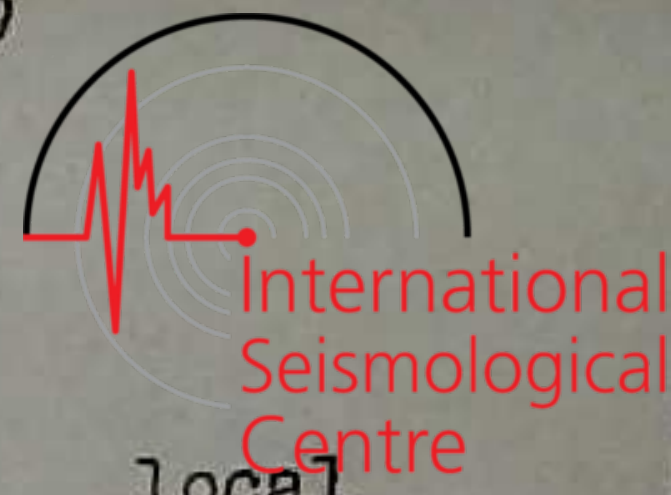
Sept.

27	iPKP	21	17	04	
	i(pPKP)	21	19	21	
28	iP	08	39	11	
	i	08	39	23	
28	iP	10	10	15	local
28	iP	12	06	19	
28	iP	13	27	21	local
29	iP	14	21	27	
	i	14	23	40	
30	iP	16	24	19	
	iP	17	06	05	
	iP	20	15	52	
31	iP	01	50	54	
	i	01	51	35	
	i	01	53	16	
31	iP	11	59	33	
	i	12	01	36	
1	iP	02	57	13	local
	iS	02	57	25	
1	iP	03	03	14	local
	iS	03	03	26	
1	iP	12	56	29	
1	iP	12	59	52	local
1	iP	13	12	37	local
2	iP	03	45	18	
2	ePKP ₂	10	06	15	
	i	10	07	19	
2	iP	14	33	34	C
	i	14	33	51	
2	iP	21	33	26	
	ipP	21	34	39	
3	iP	14	59	04	
	i	14	59	12	
	PZ				Micr 0.06 Sec 0.7
3	i	20	48	20	
	i	20	49	24	
	i(PP)	20	51	11	
	i	20	56	21	
4	iP	08	12	49	
	i	08	13	10	
5	iP	11	39	58	
	iPP	11	40	43	
	iPPP	11	42	18	
	eS	11	44	12	
	eLR	11	47	28	
	i	11	48	51	
	PZ				Micr 0.02 Sec 0.6

t.								
6	i		01			48	19	C
		Micr			Sec			
		0.01			0,5			
6	iP		12			18	27	local
	iP		12			29	49	local
	iP		12			36	23	local
6	iP		17			48	09	
	iPP		17			50	21	
6	iP		20			25	46	
	iPP		20			27	43	
	i		20			30	35	
7	i		05			59	48	
7	i!PKP		07			01	03	
7	iP		10			19	57	
7	iP		17			41	12	
	iS		17			42	06	
	PZ	Micr			Sec			
		0.02			0,4			
8	iP		13			05	53	local
9	iP		09			20	10	
	i		09			20	40	
	i		09			21	14	
	i		09			23	45	
	PZ	Micr			Sec			
		0.9			2,7			
10	iP		00			23	55	
11	iP		15			27	16	local
	iS		15			27	24	
11	eP		17			38	49	
	e		17			40	12	
	i		17			41	17	
11	i		23			42	01	
	iPKP ₁		23			42	07	
	i!		23			42	17	
	PKP ₁ Z	Micr			Sec			
		0.3			1,4			
12	iP		00			43	42	
	iPP		00			45	12	
12	iP		01			01	43	
12	iP		17			23	25	
	iS		17			24	35	
	PZ	Micr			Sec			
		0.02			0,5			
13	iP		22			40	50	
	iPP		22			42	14	
15	iP		04			34	06	C
	i!		04			34	08	
	i		04			35	45	
	PZ	Micr			Sec			
		0.15			0,4			



t.	16	e		18		04	49	
	17	e		20		24	57	
		i		20		27	16	
	17	iP		22		28	18	local
	18	iP		0I		II	52	
		i		0I		12	02	
	18	iP		20		55	45	local
	19	iP		13		41	40	local
	19	iPKS		17		21	37	C
		Z	Micr 0,07 M = 6		Sec 1,0			
	20	iP		08		37	50	
	20	iP		11		48	58	local
	20	iP		18		51	40	
		iS		18		52	33	
	20	iP		19		06	20	
	20	iP		22		22	17	
		i		22		23	45	
	21	iP		15		29	25	
		iS		15		30	23	
	21	iP		20		19	05	
		iS		20		21	09	
		PZ	Micr 0.1		Sec 1,0			
	22	iP		19		07	00	local
	22	iP		20		00	09	
	23	iP		08		14	52	
	23	iP		19		04	03	
		PZ	Micr 0.1		Sec 1,4			
	24	iP		02		04	28	
		i		02		04	34	
		PZ	Micr 0.1		Sec 1,5			
	24	iP		08		12	10	
		iPP		08		12	25	
		iS		08		12	51	
		PZ	Micr 0.03		Sec 0,5			
	24	iP		08		34	02	
		iS		08		44	57	
		e		08		47	27	
		e		08		51	17	
		eL		08		59	-	
		MLR		09		15	-	
	25	iP		02		00	51	



International
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Date	Time	Phase	Amplitude	Duration	Time 1	Time 2	Notes
t	25	iP			06	01	10
	25	eP			06	35	05
		e			06	37	11
	25	iP			10	27	53 local
	25	iP			15	40	23
	25	iP			16	42	23
	25	iP			16	49	30
	25	iP			22	30	00
	25	iP			23	46	28
	26	iP			02	45	00
	26	iP			10	48	53 local
		iS			10	48	59
	26	iPKP!	Micr		12	22	27
		PKPZ	0,3	Sec			
				1			
	26	iP			18	59	37 D
		i			18	59	37
		PZ	Micr				
			0.3	Sec			
				1,8			
	26	iP			20	40	00
	27	iP			04	21	38
		i			04	21	59
		i			04	22	55
		i			04	25	34
	28	iP			00	39	12
		i			00	39	35
		i_P			00	40	53
		p					
	28	iPKP ₁			14	38	38 C
		iPKP ₂			14	39	23
		ipPKP ₁			14	41	00
		iPKS ₁			14	41	57
		i			14	44	23
		iSKS			14	45	51
		i!			14	52	57
		e			14	57	16
		PKP ₁ Z	Micr				
			0.3	Sec			
				0.8			
	28	iPKP			15	02	49
	29	iP			08	32	02
		iS			08	34	21
	29	iP			12	37	14 local
	29	iP			15	23	43 local
	29	iP			15	35	14 local
October	2	i!P			00	79	37
		iS			00	48	53
		PZ	Micr				
			0.07	Sec			
				0.5			

ber							
2	e		12			41	06
	i		12			41	12
	Z	Micr			Sec		
		0.3			2		
2	iP		13			13	16
	e(S)		13			19	06
	eLR		13			21	24
2	iP		20			56	02
	i		20			56	11
2	iP		21			07	46
	i!		21			07	54
4	iPKP		01			20	12
	i		01			20	16
	PKPZ	Micr			Sec		
		0.05			0,5		
4	iP		05			39	16
	i		05			39	48
	eS		05			50	23
	e		05			51	36
	PZ	Micr			Sec		
		0.6			2,1		
4	iP		22			50	19
	iS		22			51	01
5	iP		05			31	19
5	iP		07			58	16
5	i(P)		07			21	02
	i(PP)		07			23	49
5	i!		11			45	51 T=0,6sec
	i		11			48	03 T=0,5sec
5	iP		11			38	40
	iS		11			40	02
	PZ	Micr			Sec		
		0.16			1.0		
5	iP		15			53	42
	iS		15			55	04
5	i(PKP)		21			40	18
	i		21			40	44
5	e		23			30	17
6	iP		00			32	10
	i		00			33	29
7	iP		01			02	26
	i		01			04	17
7	i!P		13			32	20
	i!		13			32	31
	i		13			33	05 T=0,5sec
	PZ	Micr			Sec		
		0.6			2,1		
7	iPKP1		17			07	28
	iPKP2		17			07	32
	i		17			09	56
	PKP1Z	Micr			sec		
		0.06			0,5		



International
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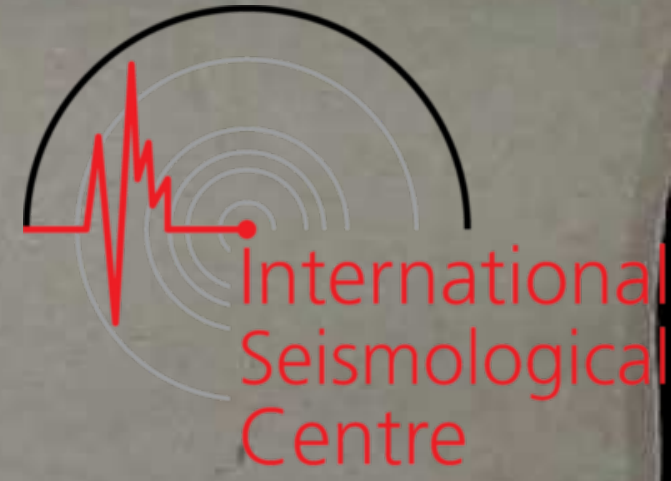
October	Day	Station	Magn	Time	Sec	Mag	Mag	Mag
	9	iP		20		07	18	
		iS		20		08	17	
	10	iPKP	Micr	04	Sec	05	34	C
		PKPZ	0.04		0,6			
	11	iP		18		47	57	
		i		18		49	11	
		i		18		52	06	
		i		18		53	29	
		i(s)		18		53	51	
	11	iP		19		08	56	
		e		19		14	43	
	12	i		19		09	29	D
		i!		19		09	46	
	13	iP		04		31	50	
		i		04		31	52	C
		PZ	Micr		Sec			
			0,1		1,0			
	13	iP		14		33	41	local
	13	iP		19		06	26	
		i		19		07	06	
	14	iP		15		47	38	
		i		15		47	49	
	14	iP		21		21	18	
		iS		21		22	05	
		i!		21		22	22	
		PZ	Micr		Sec			
			0.14		0,5			
	15	iP		01		29	25	
		i		01		30	58	
	15	iP		04		37	20	
	15	i		06		15	04	C
	15	iP		14		50	20	local
	15	iP		15		03	24	local
	16	iP		10		10	04	local
	16	iP		10		30	51	
		PZ	Micr		Sec			
			0.02		0,4			



A. Schlanger,
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GEOLOGICAL SURVEY
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Geomorphological & Quaternary Department
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Bulletin No. 47
October 16/November 26

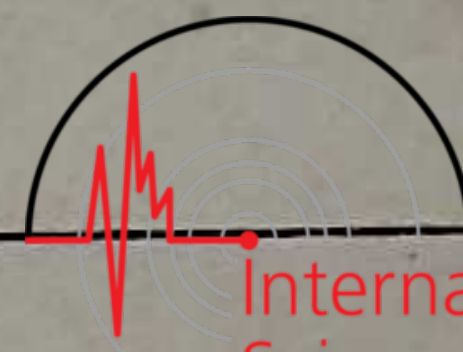
10.12.57

October	16	iP	13	15	35	
		iS	13	15	40	
				M=1,4		
	18	iP	01	53	52	
	19	iP	03	17	09	
		i	03	18	03	
	19	eP	06	33	52	
		i	06	34	52	
	19	iP	18	40	38	D
		i	18	41	01	
		ePP	18	45	29	
		MLR	19	18	-	
		PZ		Micr 0,2	Sec 1,2	
	20	iP	12	16	00	
		ePP	12	18	48	
		eLR	12	41	-	
	20/21		microseisms from 20/10 to 21/10		13 00	
					07 00	
			mean Amplitude		A = 0,14 Micr	
			" Period		T = 2,0 Sec	
	21	eP	14	13	26	
				local		
	22	iP	09	59	46	
				local		
	22	iP	2 0	57	01	
		i	20	57	14	
	23	eP	06	10	07	
		PZ		Micr 0.05	Sec 0,8	
	23	iP	14	35	00	
	24	iP	02	35	32	
		i!	02	35	35	
		iS	02	37	08	
		i	02	38	42	
	24	iP	09	26	16	
		i!	09	26	20	
		e	09	28	27	
		PZ		Micr 0,17	Sec 0.4	
	24	iP	11	26	23	
				local		
	24	iP	11	47	10	
				local		
	24	iP	12	35	26	
				local		
	24	iP	12	43	37	
				local		
	24	eP	12	54	42	
				local		

October	24	iP	21		08		06	
	25	iP	02		21		15	
	25	iP	06		30		55	
	25	iP	07		43		43	
		e	07		45		24	
		eS	07		48		29	
	25	iP	10		15		58	
		e	10		22		55	
		eS	10		26		17	
		eL	10		36		-	
		PZ		Micr		Sec		
				0.8		2		
	25	iP	10		34		06	D
		iS	10		34		16	
				d= 80 km				
				M =2,5				
	25	iP	22		56		42	D
		e	22		57		23	
		PZ		Micr		Sec		
				0.07		1		
	26	iP	04		44		06	
		PZ		Micr		Sec		
				0.07		1		
	26	iPKP	08		44		56	
		i!	08		45		00	
		i	08		46		30	
		i	08		47		20	
		PKPZ		Micr		Sec		
				0.3		1.0		
	26	iP	14		29		27	
		i!	14		29		29	
		i	14		32		42	
		PZ		Micr		Sec		
				0.2		1		
	27	iP	22		26		48	
				local				
	27	iP	22		44		40	D
		i	22		48		36	
		PZ		Micr		Sec		
				0.6		1,5		
	29	iP	00		21		32	
	29	iP	02		34		02	
	29	iP	04		09		21	
	30	iP	01		44		52	
		iS	01		46		15	
		iT	01		51		57	
	30	iP	02		57		49	
	30	iP	07		32		05	D
		iS	07		33		24	
		iT	07		38		53	
		TZ		Micr		Sec		
				0.05		0.5		
	30	iP	11		49		59	
		i	11		52		21	
	30	iP	18		05		42	
		iS	18		07		07	
	30	iP	18		23		41	
		iS	18		25		05	
	30	iP	20		35		52	
		iS	20		37		14	
	31	iP	02		49		15	
		i!	02		49		35	



International
Seismological
Centre



November	1	iP	20	59	04	
		e	21	00	18	
	2	iP	05	35	58	
		iS	05	37	09	
	2	eP	16	29	51	
	3	iP	01	03	29	C
		iS	01	03	46	
				D=140 km		
				M = 2,5		, Foreshock
	3	iP!	09	56	59	C
		i!S	09	57	16	
				D=140 km		
				M=4,5-5		
				felt in Israel : Jerusalem INT III-IV		
	4	iP	12	05	55	
		i	12	07	07	
	4	iP	00	24	15	
		iS	00	24	33	
				M=1,5 - after shock		
	4	iP	12	55	47	
				local		
	4	iP	17	01	32	
		iS	17	01	50	
				Aftershock		
	5	iP	11	42	38	
				local		
	6	iP	00	36	05	small
		iS	00	37	35	
	6	iP	13	25	36	
		PZ		Micr 0.04	Sec 0.6	
	6	iP	21	05	10	
		e	21	05	38	
	6	iP	22	02	02	
		i	22	03	21	
	7	iP	22	23	22	
		e	22	23	52	
		i(s)	22	25	58	
	8	iP	08	08	15	
		iS	08	09	38	
	8	eP	12	29	29	
				local		
	8	iP	18	18	41	
		iS	18	20	81	
	9	iP	23	58	57	
		i	00	01	15	
	10	eP	02	55	17	
		e	02	57	29	
	10	e	04	04	07	
	10	iP	06	07	09	
				local		
	10	iPKP	05	48	10	
		L	05	48	19	
		PKPZ		Micr 0.15	Sec 1,6	
	10	iP	19	32	33	
	10	iP	18	14	08	

Month	Day	Type	Time	Mag	Depth	Duration	Notes
November	11	iP	03	29			22 23
		i	03				
	11	iP	18	32			55
		i	18	34			19
	11	iP	21	44			22
	12	iP	00	39			56
	12	iP	21	58			00
		iS	21	58			41
	12	iP	22	03			11
		iS	23	03			52
	13	iPKP	17	42			31
		i!	17	42			39 C
		i	17	43			08
		PZ			Micr 0.5		Sec 2,0
	14	iP	14	20			08
	14	iP	10	42			48
		iS	10	44			09
	14	iP	11	37			14
					local		
	14	iP	11	45			05
					local		
	15	iP	08	05			01
		i	08	05			23
	15	eP	16	42			56
		e	16	49			44
		PZ			Micr 0,2		Sec 1,6
	15	e	17	04			(35)
	16	iP	09	56			54
		iS	09	58			13
	17	iP	20	26			16
		iS	20	27			35
	18	iP	03	04			59
		i	03	08			53
		i	03	10			54
	19	i!	16	25			49
		PZ			Micr 0.3		Sec 1,0
	19	iP	20	09			43
		iS	20	11			07
	21	iP	07	42			01
							local
	22	iP	14	35			11
	24	iP	14	05			30
		PZ			Micr 0.01		Sec 0.5
	25	iP	22	47			20
		i	22	50			35
		eS	22	57			43
		MZ	23	28			-
		PZ			Micr 0.8		Sec 2,0
	26	iP	05	22			22 D
		i	05	33			52 D
		PZ			Micr 1,6		Sec 3,0





MICROSEISMS

November

	00h		06h		12 h		18 h	
	A(microns)	T(sec)	A(Microns)	T (sec)	A(Microns)	T(sec)	A(micr.)	T(sec)
5	-----		-----		-----		0.12	2,0
6	0.06	2,0	0,12	2,0	0.15	2,0	0.15	2,0
7	0.06	2,0	0.06	2,0	0.06	2,0	0.03	2,0
8	-----		-----		-----		-----	
9	-----		-----		-----		-----	
10	-----		-----		-----		-----	
11	-----		-----		-----		-----	
12	-----		-----		-----		-----	
13	-----		-----		-----		0.07	3,0
14	0.04	2,5	0.04	2,5	0.04	2,5	0.03	1,5
15	0.03	1,5	0.03	1,5	0.06	2	0.07	2,5
16	0.03	1,5	0.06	2	0.06	2	0.06	2
17	0.06	2	0.06	2	0.06	2	0.06	2
18	0.06	2	0.04	1,5	-----		-----	
19	-----		-----		-----		-----	
20	-----		-----		-----		-----	
21	-----		-----		-----		-----	
22	-----		-----		-----		0.06	2
23	0.06	2	0.07	2	0.03	2	-----	
24	-----		-----		-----		-----	
25	0.04	2	0.06	2	0.06	2	-----	

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DEC 1957

					15.1.58.
November 26	iP	08	18	05	
	iS	08	20	28	
26	iP	11	52	44	
	iS	11	55	06	
27	iP	03	10	44	
	iS	03	13	06	
28	iP	05	10	49	
	iS	05	13	08	
28	iPKP	21	09	46	
	e	21	12	19	
29	iP	01	00	01	
29	eP	22	34	00	
	ipP	22	35	00	
	iPKP	22	37	32	
	i	22	38	07	
	i!PP	22	38	38	
	i!pPP	22	39	34	
	i!	22	47	53	
	i	22	48	16	
	PPZ				Micr 10
	pPPZ				4 6
29	iP	18	05	19	
	iS	18	05	37	
30	iP	22	06	45	
December 1	iP	01	15	12	
	i(s)	01	21	19	
4	i!P	03	47	01	
	iPP	03	49	00	
	iS	03	54	26	
	eL	03	58	57	
	eLR	03	59	57	
	PZ				Micr 5
5	iP	13	57	15	c.
	iS	13	58	33	
5	iP	19	44	53	
	iS	19	46	11	
	PZ				Micr 0.07
					Sec 1,0

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December	5	iP	23	44	08			
		is	23	44	49			
	6	iP	00	13	39			
		iS	00	15	36			
		iT	00	20	31			
	6	i!P	03	02	02	c		
	6	i!P	21	33	13			
		PZ					Micr	Sec
							0.05	0.5
	9	iP	01	20	13			
	10	iP	14	54	33			
		e	14	56	12			
		e	15	06	40			
	11	iP	15	00	23			
	11	iP	18	23	55			
	11	iP	22	04	23			
		PZ					Micr	Sec
							0.04	1.0
	12	iP	18	57	37			
		i(s)	18	59	32			
	13	i	01	47	36			
		i!P	01	47	42			
		i	01	48	15			
		eiS	01	49	41			
		iLR	01	50	06			
		PZ					Micr	Sec
							3	2.0
	13	i	02	15	23			
	13	ip	03	20	17			
		eS	03	22	19			
		eLR	03	22	51			
	13	iP	17	57	37	a		
		iS	17	57	47			
	14	iP	00	22	16			
		i	00	25	05			
		i	00	25	29			
	14	iP	12	12	25			
		i	12	14	40			
	14	iP	15	10	59			
		is	15	11	18			
	14	e	22	04	07			
		e	22	04	42			
		e(s)	22	06	37			
	15	e	03	32	50			
		i	03	33	13			
	15	iP	18	33	20	small		
		i	18	34	57			
		i(s)	18	35	45			
	16	eP	17	33	09			
		i	17	34	13			
		is	17	36	29			
		i	17	36	42			



December 16	iP	23	08	10			
	i	23	09	09			
	i!	23	09	52			
	i	23	10	48			
	iS	23	11	29			
17	iP	04	22	(39)			
	i	04	24	47			
17	iP	05	22	40			
	i	05	22	53			
	e	05	27	54			
	e(s)	05	33	30			
	e	05	43	50			
	MLR	06	08	-			
	MLR					Micr 35	Sec 16.0
17	i!P	14	09	20			
	i	14	09	53			
	i	14	11	46			
	i	14	12	15			
	i	14	35	46			
	PZ					Micr 0.6	Sec 1.0
17	iP	16	36	05	small		
	i	16	38	32			
18	iP	03	33	54			
18	iP	12	14	39			
18	iP	13	25	43			
	iS	13	28	10			
18	e	13	45	03			
19	iP	16	01	49			
	i	16	09	29			
	i	16	12	21			
22	iP	14	09	59			
22	i	21	57	21			
	i	21	58	26			
23	iP	00	46	31			
23	iP	12	43	58			
23	iP	14	34	26	D		
	is	14	34	45			
	PZ					Micr 0.2	Sec 0.7
23	iP	19	41	26			
23	iP	21	39	07			
	iS	21	40	28			
24	iP	12	13	11			
	is	12	14	44			
	PZ					Micr 0.02	Sec 0.4
25	iP	11	30	10			
	i	11	31	56			
	i	11	35	40			

December 25	iP	15	55	35			
	iS	15	55	42			
25	iP	16	39	12			
25	iP	20	43	58			
	i	20	46	01			
26	iP	12	29	02	C		
	i!	12	29	08			
26	i	15	04	05			
	i!P	15	04	08			
	i	15	06	35			
	PZ					Micr 0.4	Sec 1.0
27	e	16	31	48			
	i	16	32	50			
28	i! (PKP)	19	21	20	C		
	i	19	21	28			
	PZ					Micr 0.3	Sec 1,7
29	iP	03	31	42	small		
29	iP	13	31	59			
	i	13	33	12			
29	iP	23	01	28			
	iS	23	02	07			
30	iP	02	01	38	D		
	PZ					Micr 0.05	Sec 0.5
31	iP	14	47	46			
	iS	14	50	43			
	PZ					Micr 0.3	Sec 1,7