ROYAL OBSERVATORY? HEWAN, EGYPT

Seismological Bullitin

February 1949

Date	Comp	Phase	G. h.	M. m.	T. s.	Per s	Amplitude A_N μ	A_E μ	A_Z μ	Km.	Remarks
1	Z	eP	18	33	10						Preceded by microseisms
	Z	e			30						
	Z	e		34	20						
	E	e		40	45						
	N	e		42	10						
	E	e		43	24						
		F	21.0								
2	Z	eP	17	54	30					10555	" " "
	Z	pP		55	25						h = 200 Km.
	Z	sP			45						
	Z	PP		58	24						
	Z	e		59	00						
	ZZ	ipPP			12						
	Z	i			24						
	Z	i	18	00	57						
	NE	SKKS		04	48						
	N	S		05	26						
	N	e		06	16						
	N	e		07	46						
		F	19.0								
3	Z	e	16	49	38						Confused with microseisms
	Z	e			48						
	Z	e		50	06						
		F	18.6								
5	ZN	i	00	30	44						" " "
	Z	i			52						
	ZN	e		32	34						
	Z	e			51						
	N	e		34	46						
		F	1.1								
5	ZN	eP	15	28	54						" " "
	Z	e		29	10						Very weak
	Z	e			34						
	N	e		39	48						
		F	15.9								
9	Z	e	13	36	12						" " "
	Z	e		40	25						
		F	13.9								
10/11	Z	PKP	22	16	33					16165	
	Z	e			42						
	Z	PKKP			54						
	Z	e		17	47						
	Z	SKP		20	06						
	Z	PP			39						
	Z	i		21	12						
	N	SS	0	40	12						
		F	21.5								
11	Z	PKP	7	43	30						Very weak
	Z	i			52						
	Z	i		44	02						
		F	9.0								

Date	Comp	Phase	G. M. T.	Per	Amplitude A_N A_E A_Z			Remarks
			h. m. s.	s	μ μ μ			Km.
13	Z	iPKP	18 44 10					17465 Dilatation
	Z	e	45 02					
	Z	PKKP	39					
	Z	e	46 36					
	Z	PP	48 12					
	ZN	e	39					
	E	e	53 15					
	E	SKKS	54 57					
	E	e	58 27					
	E	M	19 45					
		F	21.5					
14	Z	P	16 43 46					Very weak
	Z	e	47 10					
	Z	e	30					
14	Z	iP	18 54 39					9000 Dilatation
	Z	PP	57 46					
	Z	e	58 30					
	NE	S	19 04 47					
	N	i	05 14					
		F	20.2					
16	N	i	15 15 34					Confused with microseisms
		F	15.5					
17	Z	eP	21 05 55					2745 " " "
	Z	e	06 19					
	Z	PPP	45					
	ZN	S	10 15					
		F	21.8					
18	NE	M	22 07					" " "
		F	22.3					
19	Z	eP	1 14 58					" " "
	Z	i	17 33					
21	Z	eP	2 30 45					" " "
	Z	e	31 04					
	N	e	42					Very weak
		F	2.7					
22	Z	eP	00 54 30					Confused with microseisms
	N	e	54					
	N	e	55 22					
	N	e	45					
	N	e	57 32					
		F	1.1					
23	Z	ePn	15 30 00					677
	Z	e	09					
	Z	e	21					
	Z	e	36					
	NE	Sn	31 11					
	N	Sg	48					
		F	15.9					
23	Z	iP	16 16 15					4835 Dilatation
	N	e	58					
	N	e	17 20					
	N	PP	58					
	N	PcP	18 03					
	N	PPP	32					
	NN	i	20 58					
	N	e	21 48					

Date	Comp	Phase	G. h.	M. m.	T. s.	Per s	Amplitude A_N μ	A_E μ	A_Z μ	Km.	Remarks
23	N	e	16	22	27						
Cont.	N	iS			44						
	N	i		26	06						
		F	20.1								
24	Z	eP	23	08	53					4220	
	Z	e		10	00						
	Z	PP			30						
	Z	e		11	54						
	E	eS		14	48						
	Z	e		16	15						
	E	M		24	21	15		+25			
		F	24.0								
26	N	(eP)	00	38	06						Confused with microseisms
	Z	e		40	42						
	Z	e		41	22						
	N	e		42	16						
	N	e		43	00						
		F	1.1								
26	Z	eP	4	18	00						" " "
	NE	e		25	14						
		F	5.4								
28	Z	P	00	26	57					10555	" " "
	Z	PP		30	54						h = 100 Km.
	NE	S		38	44						
	N	PS		39	27						
	E	e		40	08						
	E	M	1	06							
		F	3.0								

Tremors were also recorded at :

D	H	D	H
6	11	21	12

Microseisms (Z)

Day / Hour	0 μ	6 μ	12 μ	18 μ	Day / Hour	0 μ	6 μ	12 μ	18 μ
1	0.4	0.4	0.3	0.3	15	0.3	0.4	0.5	0.7
2	0.4	0.4	0.5	---	16	0.9	0.9	1.0	0.6
3	0.4	0.6	0.6	0.6	17	0.5	0.5	0.4	0.3
4	0.6	0.8	1.0	0.8	18	0.2	0.4	0.7	0.6
5	0.6	0.6	0.4	0.4	19	1.0	0.6	0.5	0.4
6	0.5	0.6	0.5	0.4	20	0.4	0.4	0.4	0.4
7	0.4	0.4	1.0	0.7	21	0.4	0.3	0.4	0.3
8	1.2	1.6	1.3	1.1	22	0.4	0.4	0.4	0.3
9	0.9	0.9	0.8	0.5	23	0.3	0.4	0.4	---
10	0.4	0.4	0.4	0.3	24	0.3	0.3	0.3	0.3
11	---	0.3	0.3	0.3	25	0.4	0.4	0.5	0.4
12	0.3	0.4	0.3	0.3	26	0.4	0.4	0.4	0.4
13	0.4	0.4	0.4	0.3	27	0.4	0.5	0.6	0.5
14	0.4	---;	0.3	0.2	28	0.5	0.4	0.4	0.4

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Date	Comp	Phase	G. M. T.	Per.	Amplitude A_N	A_E	A_Z	Δ	Remarks
			h. m. s.	s.	μ	μ	μ	Km.	
2	Z	e	7 01 27					7720	Preceded by microseisms
	Z	i	02 56						
	Z	PP	03 06						
	Z	i	50						
	Z	PPP	04 45						
	NZ	S	09 38						
		F	Lost in changing the paper						
4	Z	iP	1 28 39					8420	Dilatation
	Z	e	29 29						
	Z	e	30 10						
	Z	PP	31 30						
	NE	iS	38 20						
	N	PS	39 00						
		F	4.0						
4	NEZ	iP	10 25 47					3445	Dilatation (very strong)
	E	e	26 22						
	E	e	33						
	E	PP	46						
	E	PPP	27 00						
	N	iS	30 52						
		F	14.2						
6	Z	iP	16 40 57					2110	Compression
	Z	PPP	41 22						
	Z	e	42 15						
	Z	e	44 12						
	NE	eS	27						
	Z	SS	50						
		F	17.2						
9	Z	e	15 15 13						Confused with microseisms
	Z	e	26						
	Z	e	18 57						
	Z	e	19 42						
		F	15.9						
13	N	(i)	12 58 24						
13	E	e	19 07 52						Very weak
	Z	e	12 00						
		F	20.1						
16/17	Z	PKP	22 33 58					13380	Confused with microseisms
	Z	e	34 03						
	Z	e	42						
	EZ	PP	35 20						
	Z	e	37 35						
	Z	PPP	38 00						
	E	e	41 12						
	E	SKKS	42 17						
	E	PS	45 15						
		F	1.5						

Date	Comp	Phase	G. M. T.	Per.	Amplitude A_N A_E A_Z	Δ	Remarks
			h. m. s.	s.	μ μ μ	Km.	
17	Z	iP	21 25 18			8890	Dilatation
	Z	e	32				
	Z	e	26 13				
	E	eS	35 21				
		F	24.0				
18	Z	e	13 28 00		Very weak		
	Z	e	29 51				
		F	13.6				
19	ZE	iP	18 31 29				Dilatation h = 200 Km.
	Z	pP	32 20				
	Z	PP	34 42				
	Z	pPP	35 36				
	Z	e	36 33				
	NE	S	41 26				
	N	sS	42 42				
		F	19		Confused with the succeeding earthquake		
19	Z	iP	~~18~~ 01 17				Compression very weak
		F	19.2				
22	Z	e	2 14 17				Confused with microseisms
	Z	e	16 06				
		F	2.7				
23	Z	e	5 47 32				Preceded by microseisms
	N	e	36				
	Z	e	48 00				
	Z	i	34				
		F	6.0				
24	Z	e	19 38 04				very weak
	Z	e	17				
	Z	e	48 25				
	Z	e	49 14				
	E	M	20 07				
		F	21.0				
24	Z	e	21 15 54				" "
	N	e	21 48				
	N	e	24 46				
		F	24.0				
26	Z	e	00 11 57				" "
	Z	i	12 15				
	Z	i	24				
		F	0.3				
27	Z	iP	6 47 18			10720	Dilatation
	Z	i	32				
	Z	PP	51 15				
	Z	i	52 15				
	ZE	SKS	57 52				
	ZN	S	58 36				
	E	PS	7 00 00				
	E	PPS	42				
	E	SS	05 12				
		F	10.0				
27	Z	P	20 47 19				very weak
	Z	e	41				
	Z	e	51 07				
		F	22.0				

Date	Comp	Phase	G. h.	M. m.	T. s.	Per. s.	Amplitude A_N '	A_E '	A_Z '	Δ Km.	Remarks
28	Z	eP	13	03	00						Confused with microseisms
	Z	e			17						
	NE	e		13	14						
	N	e			58						
		F	14.0								
30	Z	eP	15	07	40						" " "
	Z	e			54						
	Z	e		08	08						
	N	e		11	33						
		F	17.5								

Tremors were also recorded at :

D	H	D	H	D	H
8	9	9	23	11	21,23
23	23	27	5	29	4,12.5

Microseisms Z

Date / Hour h	0	6	12	18	Date / Hour	0	6	12	18
	'	'	'	'		'	'	'	'
1	0.4	0.4	0.4	0.4	17	--	0.4	0.4	0.4
2	0.4	0.4	0.4	0.5	18	0.4	0.4	0.4	0.3
3	0.4	0.5	0.5	0.5	19	0.3	0.3	0.3	0.3
4	0.5	0.5	---	0.4	20	0.3	0.3	0.4	0.3
5	0.4	0.5	0.4	0.4	21	0.3	0.4	0.4	0.4
6	0.4	0.4	0.5	0.4	22	0.4	0.4	0.4	0.3
7	0.4	0.4	0.4	0.3	23	0.4	0.4	0.4	0.4
8	0.4	0.4	0.5	0.4	24	0.4	0.4	0.5	0.3
9	0.5	0.6	0.6	0.9	25	0.4	0.4	0.4	0.4
10	---	---	0.7	0.5	26	0.4	0.4	0.4	0.3
11	0.5	0.6	0.6	0.5	27	0.3	0.4	0.5	0.4
12	0.4	0.4	0.5	0.4	28	0.5	0.4	0.8	0.7
13	0.4	0.4	0.4	0.4	29	0.6	0.4	0.4	0.3
14	0.4	0.4	0.5	0.5	30	0.3	0.4	0.4	0.3
15	0.5	0.6	0.6	0.6	31	0.4	0.3	0.4	0.3
16	0.5	0.6	0.5	0.6					

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Date	Comp	Phase	G. h.	M. m.	T. s.	Per. s.	Amplitude A_N μ	A_E μ	A_Z μ	△ Km.	Remarks
9	Z	PKP	21	38	29						Very weak
	Z	i			41						
	Z	e		39	36						
	Z	e		42	15						
11	Z	e	14	27	06						" "
	N	e		36	18						
		F	15.2								
12	Z	e	18	10	03						" "
	Z	e			22						
	Z	i		12	06						
	NE	e		15	24						
	Z	e		19	36						
	Z	e		22	28						
	Z	i		23	00						
	E	e		31	07						
		F	19.5								
14	Z	eP	00	31	43						" "
	Z	e		33	18						
	N	e		40	48						
	E	M	01	00							
		F	1.6								
16	Z	iP	18	02	51					2535	Compression
	Z	e		03	11						
	Z	PPP			29						
	E	eS		06	57						
	Z	i		07	00						
	N	i			06						
	N	SS			40						
		F	19.8								
17	Z	iP_n	4	22	16					533	Dilatation
	Z	P*			26						(Felt in Cairo)
	NE	iS_n		23	12						
		F	4.8								
18	E	e	14	43	27						Very weak
	NE	M		47							
		F	15.1								
19	Z	e	9	06	34						" "
	Z	e		07	00						
	Z	e		09	25						
	Z	e			49						
		F	11.0								
22	Z	eP	1	53	51					2420	
	Z	e		54	30						
	Z	e			45						
	NEZ	(S)		57	48						
	N	i		58	08						
	N	(SS)			27						
		F	2.3								

Date	Comp	Phase	G. h.	M. m.	T. s.	Per. s.	Amplitude A_N μ	A_E μ	A_Z μ	Δ Km.	Remarks
23	Z	pPKP	22	47	08					15000	h = 180 Km.
	Z	e			21						
	Z	PP		49	12						
	Z	SKP			38						
	Z	(pPP)			51						
	Z	(iPPP)		52	04						
	E	e		55	47						
	N	e	23	08	24						
		F	24.0								
24/25	Z	iP	2	50	50					8720	Dilatation
	Z	e		53	50						
	E	ePP			54						
	Z	e		55	27						
	N	S	23	00	46						
	N	SKS		01	06						
	NE	PS			24						
		F	1.0								
25	Z	e	19	37	08						Very weak
	Z	e			28						
	Z	e			51						
	Z	e		41	13						
											" "
26	Z	e	5	48	06						
	Z	e			50						
	Z	e		51	39						
26	Z	iP	8	54	33					10335	Dilatation
	Z	e			45						
	Z	e		55	30						
	Z	e		56	24						
	Z	PP		58	18						
	N	PPS	9	07	29						
		F	10.5								

Tremors were also recorded at :

D	H	D	H	D	H	D	H
10	14	15	10	17	1[illegible]	28	00

Microseisms (Z)

Day / Hour	0	6	12	18	Day / Hour	0	6	12	18
1	0.4	0.3	---	---	16	0.2	0.2	0.2	0.2
2	---	---	0.4	0.4	17	0.2	0.2	0.3	0.3
3	0.3	0.3	0.3	0.3	18	0.3	0.3	0.3	0.3
4	0.3	0.3	0.2	0.2	19	0.3	0.2	0.3	0.3
5	0.2	0.2	0.2	0.2	20	0.3	0.3	0.3	0.3
6	0.2	0.2	0.2	0.2	21	0.3	0.3	0.3	0.3
7	0.2	0.3	0.3	0.3	22	0.3	0.3	0.3	0.3
8	0.2	0.2	0.2	0.2	23	0.3	0.3	0.3	0.3
9	0.3	0.3	0.3	0.2	24	0.3	0.3	0.3	0.3
10	0.2	0.2	0.2	0.2	25	---	0.3	0.3	0.4
11	0.2	0.2	0.2	0.2	26	0.3	---	0.3	0.2
12	0.2	0.2	0.2	0.2	27	0.3	0.2	0.2	0.2
13	0.2	0.2	0.3	0.3	28	---	0.3	---	---
14	0.3	0.3	0.2	0.2	29	---	---	---	---
15	0.2	0.2	0.2	0.2	30	---	---	0.3	0.2

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Date	Comp	Phase	G. M. T.	Per.	Amplitude A_N	Amplitude A_E	Amplitude A_Z	△	Remarks
			h. m. s.	s.	μ	μ	μ	Km.	
1	EN	Pn	10 32 26					189	Very weak
	EN	P*	28						
	EZ	Pg	30						
7	Z	ePn	16 15 30					778	
	Z	e	38						
	Z	P*	48						
	EN	Sn	16 50						
	N	i	54						
	E	S*	17 15						
		F	16.5						
9	N	e	23 06 45						" "
	N	e	07 07						
	N	e	17						
		F	23.2						
10	Z	e	19 35 24						" "
	Z	e	38 25						
16	N	e	23 32 30						" "
	N	e	35 12						
	N	e	44						
		F	23.7						
17	N	e	1 22 32						" "
	N	e	26 00						
	N	e	30						
		F	1.6						
17	N	ePP	7 14 00					13110	
	N	e	17 52						
	N	e	18 12						
	N	e	19 00						
	N	SKS	44						
	N	SKKS	21 00						
	E	PS	23 50						
	E	PPS	24 56						
	N	e	26 30						
	EN	e	29 45						
	N	M	8 06 18	20	195				
		F	11.4						
17	N	ePP	15 28 06					13335	
	N	SKP	29 40						
	N	e	30 30						
	EN	e	34 06						
	N	SKKS	35 12						
	N	e	36 05						
	N	e	37 05						
	N	PS	38 00						
	N	PPS	39 12						
	E	e	42 15						
	N	e	43 15						
	E	M	16 30 30	20		385			
		F	19.7						
19	EN	e	14 01 21						Local tremor

Date	Comp	Phase	G. h.	M. m.	T. s.	Per. s.	Amplitude AN μ	A_E μ	A_Z μ	Δ Km.	Remarks
D 20	N	eP	00	42	16					1510	Confused with microseisms
	N	PP			27						
	N	S		44	50						
	E	SS		45	06						
	N	M		50	33	14	+32				
		F	1.4								
21	Z	eP	19	50	33					8110	" " "
	Z	PP		53	25						Very weak
	N	e			48						
	N	e		55	50						
	EN	S	20	00	00						
	N	e		01	06						
	N	SS		04	40						
		F	20.7								
22	Z	eP	9	50	06						" "
	Z	e		52	30						
	N	i		55	42						
	E	e		59	14						
		F	10.8								
25/26	Z	P	23	30	11					9445	Preceded by microseisms
	Z	e			40						
	Z	PP		33	29						
	N	S		40	42						
25/26	Z	P	23	37	33					9445	
	Z	PP		40	52						
	N	eS		48	09						
		F	0.8								
28	Z	eP	00	11	05					11000	Confused with microseisms
	Z	PP		15	00						
	Z	PPP		17	15						
	N	e		21	28						
	N	SKKS		22	06						
	NZ	PS		24	03						
		F	2.2								
29	Z	iP	3	16	07					9335	Dilatation
	EN	e		26	18						
	EZ	S			33						
	ENZ	PS		27	24						
	E	PPS			48						
		F	6.0								
29	Z		17 (02)								Relay out of order Compression very weak
29	Z	iP	22	18	12						
	Z	e		20	18						
	N	i		26	48						
		F	22.7								
31	Z	P	9	01	26						" "
	Z	e			46						

Tremors were also recorded at :

D	H	D	H	D	H
2	20	17	14	18	6
30	2				

Microseisms (Z)

Day / Hour	0	6	12	18	Day / Hour	0	6	12	18
1	0.3	0.4	0.4	0.3	16	0.4	0.4	0.4	0.4
2	0.4	0.4	0.4	0.4	17	---	---	0.4	---
3	0.4	0.4	0.4	0.4	18	---	1.3	1.3	0.8
4	0.5	0.5	0.5	0.4	19	1.2	1.8	1.8	1.3
5	0.4	0.4	0.4	0.4	20	1.8	1.3	1.0	1.0
6	0.3	0.3	0.3	0.3	21	0.8	0.6	0.6	0.5
7	0.3	0.3	0.3	0.3	22	0.5	0.4	0.4	0.7
8	0.3	0.3	0.4	0.4	23	0.7	0.6	0.5	0.5
9	0.3	0.3	0.3	0.3	24	0.4	0.4	0.4	0.4
10	0.3	0.3	0.3	0.3	25	0.4	0.4	---	0.6
11	0.3	0.3	0.3	0.3	26	0.6	0.6	---	---
12	0.3	0.3	0.3	0.3	27	---	---	0.9	0.9
13	0.3	0.3	0.3	0.3	28	0.8	0.8	0.8	0.6
14	0.3	0.3	0.3	0.3	29	0.6	---	0.5	---
15	0.3	0.3	0.4	0.4	30	0.5	0.5	0.5	0.5
					31	0.5	0.5	0.5	0.5