

SEISMOGRAPH RECORDS.

For the Month of January, 19 36

FROM HELWAN OBSERVATORY, EGYPT.

 $\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E—W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

DATE 19	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A_E μ	REMARKS.
		h.	m.	s.			
January 2	ep	17	39	58			Preceded by microseisms
	es	17	50	28			
	(SP)	17	50	43			
	PS	17	51	14			
	P	17	50				
		17	50				
2/3	ep	22	45	38			
	S	22	54	47			
	L	23	06	45			
	M ₁	23	14	50	26	± 221	
	M ₂	23	16	58	16	± 86	
	P	17	50				
6	P	12	39	05			
	S	12	42	34			
	H	12	47	45	13	± 18	
	P	13	03				
14	e	14	25	38			
	1	14	35	12			
	1	14	36	05			
	1	14	36	42			
	1	14	39	30			

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$\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.

Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E—W motion.
Theoretical magnification = 250.
Period of undamped pendulum = 12^s.
Times are expressed in Greenwich Civil Mean Time.

DATE 19 .	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A _E . μ .	REMARKS.
		h.	m.	s.			
January Cont. 14	I	14	39	20			
	P	16	4				
	e	18	00	42			Very weak
	I	18	03	25			
14	P	20	3				
	e	15	03	00			Very weak
	e	15	06	16			
	I	15	06	46			
15	P	17	3				
	e	8	09	13			
	S	8	12	22			
	L	8	15	00			
20	N	8	17	43	15	± 12	
	1P	17	09	24			
	PeP	17	09	42		PeP	
	PP	17	10	00			
20	PR	17	13	22			
	Series	17	19	53			
	SePePeS	17	20	22			

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$\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115 \text{ m.}$

Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E—W motion.
Theoretical magnification = 250.
Period of undamped pendulum = 12^s.0.
Times are expressed in Greenwich Civil Mean Time.

DATE 19	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A _E . μ .	REMARKS.
		h.	m.	s.			
January Cont. 20	1 S	17	20	43			
	SS	17	22	05			
	L	17	43	22			
	F	19.7					
Tremors were also recorded at :-							
	D H	D	H		D H		
	24 6	16	8		15 10		
	23 14	27	17		27 20		

Aqui hay un error

SEISMOGRAPH RECORDS.

For the Month of February, 19336

FROM HELWAN OBSERVATORY, EGYPT.

 $\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

DATE 193 .	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A _E . μ .	REMARKS.
		h.	m.	s.			
February 7	eP	9	06	33			Confused with micro-seisms
	iPR ₁		08	50			
	iPR ₂		10	18			
	eS		14	45			
	PS		15	09			
	e		16	13			
	SR ₂		20	47			
	L		25	25			
	F		12.0				
10	e	18	24	25			very weak & preceded by microseisms
	e		24	40			
	F		20.0				
12	e	11	01	18			highly preceded by microseisms
	e		06	00			
	F		11.4				
13	P	13	00	55			
	e		03	04			
	e		09	12			
	SCPC3		11	36			
	iS		12	43			

SEISMOGRAPH RECORDS.

For the Month of February, 19 ³⁶

FROM HELWAN OBSERVATORY, EGYPT.

 $\varphi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.
Dr. M. R. Madwar

Director _____

Seismograph Milne-Shaw recording E—W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

DATE 19 .	PHASE.	TIME. h. m. s.	PERIOD. s.	AMPLITUDE A _E . μ .	REMARKS.
February 15	Cont. PS	13 14 15			
	K,	51 12	18	$\pm$ 86	
	M ₂	53 00	21	$\pm$ 114	
	M ₃	55 50	23	$\pm$ 132	
	F	16.2			
16	e	14 34 27			
	e	39 42			
	F	15.2			
17	P	18 06 43			Local
	S	47			
22	e	15 50 28			Confused with micro-seisms
	e	55 07			
	e	55 20			
	L	16 38 07			
	M	49 37	20	$\pm$ 57	
	F	18.7			
22	e	19 45 12			
	e	46 03			
	F	22.2			

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For the Month of February, 19 36

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 $\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E—W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

DATE 19 .	PHASE.	TIME.			PERIOD.	AMPLITUDE A _E .	REMARKS.				
		h.	m.	s.	s.	μ.					
February 24	e	16	32	54							
	e		38	06							
	F	17.1									
/ 27	e	10	17	38			Preceded by micro-seisms				
	e		27	55							
	F	12.9									
/ 28	i	16	38	30							
	e		39	40							
	e		40	47							
	F	17.7									
Small tremors were also recorded at :-											
D	H	D	H	D	H	D	H	D	H	D	H
2	16	3	03	5	04	6	22	7	02	7	04
7	13	8	03	8	13	11	05	14	04	16	04
18	15	18	21	21	02	21	16	22	20	22	21
18	03	28	04								

SEISMOGRAPH RECORDS

For the Month of March, 1938

FROM HELWAN OBSERVATORY, EGYPT

 $\varphi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 193—	PHASE	TIME h. m. s.	PERIOD s.	AMPLITUDE A_E μ	REMARKS
March 1	e	10 33 50			Preceded with microseisms
	P ₁	35 15			
	S _c P _c P _c S	43 16			
	L	11 08 28			
	M	21 22	15	± 11	
	F	13.4			
2	P	3 31 43			
	S _c P _c S	42 03			
	S	25			minutes cutting, not certain
	L	4 06 04			
	M	17 04	20	± 17	
	F	Lost in changing the paper			
13	P _n	13 02 09			Local
	$\bar{P}$	11			
19	Begining	6 11 00			Local
20	"	20 58 07			Local (very small)
21	e	2 10 05			
	e	16 35			

SEISMOGRAPH RECORDS

For the Month of March, 1936

FROM HELWAN OBSERVATORY, EGYPT

 $\varphi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M. R. Madwar

Seismograph Milne-Shaw, recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 193—	PHASE	TIME h. m. s.	PERIOD s.	AMPLITUDE A _E μ	REMARKS				
March Cont. 21	F	3.3							
22	e	4 46 35							
	F	6.1							
22	e	12 37 00							
	F	15.1							
25	e	8 58 06			Preceded with micro-seisms				
	e	9 15 15							
	F	10.3							
Small tremors were also recorded at :-									
D	H	D	H	D	H	D	H	D	H
4	16	6	15	10	9	10	21	11	2
17	21	18	12	18	25	26	15	27	3

SEISMOGRAPH RECORDS

For the Month of April, 193⁶

FROM HELWAN OBSERVATORY, EGYPT

 $\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A, 1935-300 ex.

DATE 193—	PHASE	TIME	PERIOD	AMPLITUDE A_E	REMARKS
April 1	iP pP PR iS SS ? M F	2 22 37 23 00 25 52 33 05 33 45 3 11 45 6.0	s. 16	μ ± 108	
1	P S F	20 24 06 34 33 22.9			
9	e F	16 23 45 18.5			
12	P e i F	0 1 33 52 0.7			
12	P e e S e F	21 4 49 5 42 11 02 17 57 18 40 23.9			

SEISMOGRAPH RECORDS

For the Month of April, 1936

FROM HELWAN OBSERVATORY, EGYPT

$\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.

Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E-W motion.
Theoretical magnification = 250.
Period of undamped pendulum = 12^s.0.
Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 193—	PHASE	TIME			PERIOD s.	AMPLITUDE A_E μ	REMARKS
		h.	m.	s.			
April	17	P	22	20	10	± 10	Lines overlapping
		S		24	02		
		M		29	50		
		F	-				
	19	e	5	22	45	± 37	Lost in changing the paper
		i		26	53		
		F	9.2				
	19	eP	9	14	10	± 29	Beginning confused with the end of the preceding
		M		41	39		
		F	11.5				
	21	P	2	19	20	14	Preceded with tremors
		iS		23	40		
		M		29	51		
		F	3.5				
	23	i	10	8	25		Preceded with strong microseisms Lines overlapping
		F	-				
	27	e	0	9	22		Preceded with tremors
		i		17	55		
		F	1.5				

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SEISMOGRAPH RECORDS

For the Month of April, 1936

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Dr. M. R. Madwar

Director

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 193—	PHASE	TIME	PERIOD	AMPLITUDE A _E	REMARKS
		h. m. s.	s.	μ	
April 28	e	23 17 15			
	iS	18 38			
	F	23.6			
Tremors were also recorded at :-					
D	H	D	H	D	H
2	7,8,9	8	5	9	8,9
14	18	15	16	16	17
26	10	28	6,7,8,14	29	17
				11	4
				20	19
					13
					24
					4,8
					14,19

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SEISMOGRAPH RECORDS

For the Month of May, 1936

FROM HELWAN OBSERVATORY, EGYPT

 $\varphi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 193 <u>6</u>	PHASE	TIME h. m. s.	PERIOD s.	AMPLITUDE A_E μ	REMARKS
May 5	P	9 07 37			Local (very small)
8	iP	9 23 14			
	pP	23 30			
	e	25 20			
	e	27 18			
	i S	32 43			Felt in Mongalla (Sudan)
	ss	32 56			
	i	33 55			
	F	10.3			
11	P	17 47 42			
	F	20.4			
16	eP	7 04 04			
	iS	16 03			
	PPS	18 18			
	SR ₁	23 32			
	SR ₂	27 43			
	L	38 00			
	M	46 22	17	$\frac{2}{3}$ 37	

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SEISMOGRAPH RECORDS

For the Month of May, 1936

FROM HELWAN OBSERVATORY, EGYPT

 $\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E—W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 193—	PHASE	TIME	PERIOD	AMPLITUDE A _E	REMARKS
		h. m. s.	s.	μ	
May 19	eP	7 34 18			Preceded with micro-seisms
	pP	34 28			
	e	36 12			
	iS	43 37			
	sS	43 52			
	e	44 48			
	e	45 26			
	F	8.3			
19	e	21 14 00			Preceded & confused with microseisms
	F	23.2			
20 30	e	3 26 18			Preceded & confused with microseisms
	e	30 23			
	e	43 32			
	F	Lost in changing the paper			
22	e	0 35 20			Preceded with micro-seisms
	e	44 40			
	e	45 40			
	M	1 27 22	15	+ 12	
	F	2.9		-	
23	P	22 30 18			Local (very small)
23	Very weak earthquake.				

SEISMOGRAPH RECORDS

For the Month of May, 1936

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Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 1936	PHASE	TIME			PERIOD	AMPLITUDE A_E	REMARKS
		h.	m.	s.		μ	
May 27	iP	6	27	30	13	$\div 53$	
	e		29	32			
	iS		34	15			
	e		37	50			
	e		38	48			
	M		50	15			
	F	10.0					
28	Earthquake						Lines overlapping
Tremors were also recorded at :-							
D	H	D	H	D	H	D	H
1	13	3	3	5	21	6	16
6	16	10	15, 16,	11	2	21	4
24	13	25	17, 18	4			

SEISMOGRAPH RECORDS

For the Month of June, 1936

FROM HELWAN OBSERVATORY, EGYPT

 $\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M.R. Madwar

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 3892 A. 1935-300 ex.

DATE 193-6	PHASE	TIME h. m. s.	PERIOD s.	AMPLITUDE A _E μ	REMARKS
June 9	P	16 47 45			
	S	56 55			
	M	17 16 42	23	4 22	
	F	18.2			
10	eP	3 11 03			
	F	Confused	with the	begining of the following	earthquake.
10	P	Confused	with the	end of the preceding earthquake.	
	S	3 40 23			
	I	41 20			
	M	49 12	13	4 29	
	F	5.0			
10	E	8 37 38			
	PR.	43 23			
	SePePeS	50 27			
	S	50 53			
	PS	52 18			
	PPS	53 23			
	F	11.4			
10	P	13 20 54			Local (very small)
10	e	14 52 25			
	M	15 01 20	17	4 5	
	F	15.3			
10	e	17 17 15			
	e	48			
	e	22 05			
	M	31 19	12	4 12	
	F	18.2			

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SEISMOGRAPH RECORDS

For the Month of June, 1936

FROM HELWAN OBSERVATORY, EGYPT

$\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115 \text{ m.}$

Director Dr. M.R. Madwar

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 193—6	PHASE	TIME			PERIOD s.	AMPLITUDE A _E μ	REMARKS
		h.	m.	s.			
11	P	9	54	40	13	+9	Preceded & confused with microseisms
	eS		55	00			
	M	10	03	54			
	F	10.7					
11	P	11	57	42			Local (Not felt)
	S			52			
	F			58			
13	e	0	34	27	5?	+26	Difficult to measure owing to many inter- vals not distinct. Precede with micro- seisms.
	M		37	30			
	F	1.5					
14	eP	17	03	27			
	e		04	49			
	F	18.3					
21	e	19	07	15			Preceded & confused with microseisms.
	e		9	58			
	F	19.5					
22	e	19	38	25			Preceded & confused with microseisms.
	e		47	45			
	F	21.1					

A/F.

SEISMOGRAPH RECORDS

For the Month of June, 1936

FROM HELWAN OBSERVATORY, EGYPT

$\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115 \text{ m.}$

Director Dr. M.R. Madwar

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 193-6	PHASE	TIME	PERIOD	AMPLITUDE A _E	REMARKS
		h. m. s.	s.	μ	
29	iP	14 36 31			
	PR	37 45			
	S	41 35			
	M	51 08	20	20	
	F	16.0			
30	iP	15 19 27			
	i	23 00			
	i	26 50			
	SePeS	29 52			
	S	30 53			
	i	35 57			
	M	16 06 04	16	98	
	F	19.6			
30	eP	19 31 31			
	iS	36 00			
	SR	37 27			
	M	43 55	10	36	
	F	21.0			
Tremors were also recorded at :					
D	H	D	H	D	H
1	12	3	4,10	5	13
10	20	14	4	16	1,16
20	7	25	11	27	14
				6	17
				17	9
				28	9
				7	5,8
				18	16
					9
					19
					17

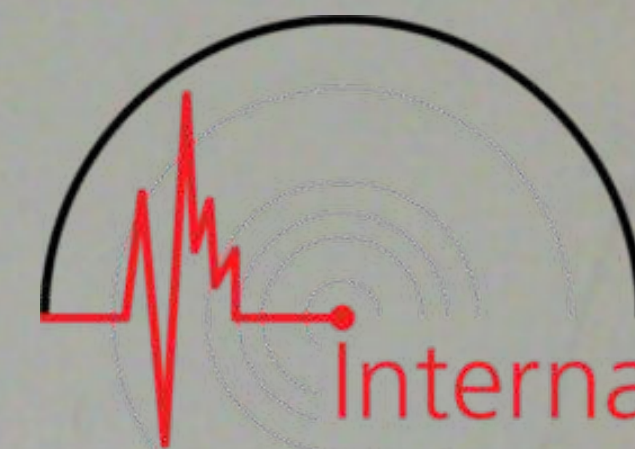
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SEISMOGRAPH RECORDS

For the Month of July, 1936



FROM HELWAN OBSERVATORY, EGYPT

$$\varphi = 29^{\circ} 51' \text{ N} \quad , \quad \lambda = 31^{\circ} 20' \text{ E} \quad , \quad h = 115 \text{ m.}$$

Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E—W motion

Theoretical magnification = 250.

Period of undamped pendulum = $12^s \cdot 0$.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 1936	PHASE	TIME h. m. s.	PERIOD s.	AMPLITUDE A _E μ	REMARKS
5	P pP i PR ₁ ScPeS ScPePeS iS uS F	19 08 16 46 09 00 12 20 18 45 19 15 19 37 20 54 22.0			
13	eP PR ₁ PR ₂ (PS) M F	11 26 50 31 25 34 00 41 25 12 22 30 15.8	20	± 236	
26	Beginning confused with microseisms PR ₁ PR ₂ (PS) (PPS) M F	7 56 05 58 27 8 05 38 06 50 45 43 11.1	15	± 54	
Tremors were also recorded at					
	D H	D H	D H	D H	D H
	3 0, 4, 5	4 10	5 11	6 2, 19	12 3, 6
	14 12	19 4	22 9	24 7, 8	26 13 20
	28 6, 7, 9, 10				23 27 4

SEISMOGRAPH RECORDS

For the Month of August, 1936

FROM HELWAN OBSERVATORY, EGYPT

φ = 29° 51' N , λ = 31° 20' E , h = 115 m.

Director Dr. M.R. Madwar

Seismograph Milne-Shaw recording E-W motion
Theoretical magnification = 250.
Period of undamped pendulum = 12^s.0.
Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 193-6	PHASE	TIME			PERIOD s.	AMPLITUDE A _E μ	REMARKS
		h.	m.	s.			
August 1	i	6	43	13			
	F	7.5					
4	i	14	31	54			
	F	15.5					
8	eP	4	14	13			
	S ?		15	25			
	F	5.3					
13	iP	20	15	41			
	S		26	35			
	M	21	04	00	18	± 18	
	F	23.1					
16	P	21	41	55			
	S		46	00			
	M		52	42	6	± 10	
	F	22.4					
19	eP	12	06	05			Preceded with microseisms
	eS		09	34			
	M		14	48	9	± 6	
	F	12.4					
20	Pr ₁	2	12	48			" " "
	S		16	20			
	e			38			
	M		21	32	10	± 13	
22	F	3.0					
	iP	7	03	42			
	Pr ₁		06	45			
	i		07	35			
	S		13	37			
	PS ?			57			
	M		45	51	18	± 43	
	F	10.4					
23	eP	21	22	48			Confused with a preceding small earthquake.
	Pr ₂		26	06			
	iS		31	00			
	M		46	17	25	± 249	
	F	0.2					

SEISMOGRAPH RECORDS

For the Month of August (Cont) , 193 6

FROM HELWAN OBSERVATORY, EGYPT

$\varphi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115 \text{ m.}$

Director M.R.Madwar

Seismograph Milne-Shaw recording E—W motion.
Theoretical magnification = 250.
Period of undamped pendulum = 12^s.0.
Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 193-6	PHASE	TIME	PERIOD	AMPLITUDE A _E	REMARKS		
		h. m. s.	s.	μ			
Tremors were also recorded at :-							
	d h	d h	d h	d h	d h		
2	23	3	4, 14	9	9, 17	10	6
12	22	13	17	14	23	15	3
16	17	17	(7, 14, 15, 16)			23	21
24	23	25	00, 21	26	23	28	00, 3, 7
29	2, 23						

SEISMOGRAPH RECORDS

For the Month of September, 1936

FROM HELWAN OBSERVATORY, EGYPT

$\phi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115 \text{ m.}$

Director Dr. M.R. Madwar

Seismograph Milne-Shaw recording E-W motion

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 193 <u>6</u>	PHASE	TIME			PERIOD	AMPLITUDE A _E	REMARKS
		h.	m.	s.			
Sept 4 /	eP	8	22	25	17	± 7	Preceded with microseisms
	PR		26	12			
	(S _c P _c P _c I _c S)		33	12			
	S			36			
	PS		34	32			
	M	9	10	24			
5	F	9.7					Very weak
	e	22	57	50			
	e	23	02	48			
6 /	F	23.3					
	P	17	59	48			
	e	18	10	20			
7 /	F	20.3					Preceded with microseisms Lines overlapping
	eP	8	58	07			
	IS	9	02	47			
18 /	F						Preceded & Confused with microseisms
	eP	18	51	30			
	(S _c P _c S)	19	02	08			
19	S			19	20	± 201	Greater part of the paper lost, due to defective paper
	F	20.2					
	1P	1	12	40			
	e		13	20			
	e		14	00			
	e		16	37			
19	M		43	07	15	± 9	Preceded & confused with microseisms
	F	4.7					
	e	6	41	20			
21	S		50	16			
	e		51	10			
	M	7	10	25			
	F	8.3					
21	P	11	44	07			
	e		46	47			
	F	13.4					

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SEISMOGRAPH RECORDS

For the Month of October, 1934

FROM HELWAN OBSERVATORY, EGYPT

$\varphi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115 \text{ m.}$

Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E—W motion

Theoretical magnification = 250.

Period of undamped pendulum = 12^{sec}.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 193 <u>4</u>	PHASE	TIME			PERIOD s.	AMPLITUDE A _E μ	REMARKS
		h.	m.	s.			
Oct / 5	O	0	13	27			
	O			50			
	F	2.6	30	02			
/ 5	1P	6	21	23			Preceded with microseisms
	S		31	42			
	F	7.6	32	00			
/ 5	1P	9	57	40			
	1		58	00			
	PR ₁	10	01	25			
	S		08	11			
	(S)			45			
	F	12.0	37	10	25	± 66	
11	O	16	28	15			
	O		29	15			
	F	17.0					
/ 15	OP	21	28	40			
	O		31	25			
	PR ₂		34	20			
	O		38	40			
	F	23.3	22	18	15	± 7	
/ 16	P	12	16	45			Preceded with microseisms
	F	14.4					
17	P	3	15	02			
	S		19	03			
	F	3.9					
/ 19	P	12	17	48			
	O		21	35			
	S		28	20			
	M	13	05	17	25	± 31	
	F	15.0					

SEISMOGRAPH RECORDS

For the Month of October (Cont.), 1933

FROM HELWAN OBSERVATORY, EGYPT

$\varphi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115 \text{ m.}$

Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E-W motion

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 193 <u>6</u>	PHASE	TIME	PERIOD	AMPLITUDE A _E	REMARKS
		h. m. s.	s.	μ	
/ 20	eP	12 52 45			
	S	57 20			
	M ₁	13 02 02	10	+ 5	
	M ₂	03 48	08	+ 5	
	F	13.4			
21	e	1 57 50			Preceded with microseisms
	M	2 15 40	10	+ 4	
	F	2.7			
/ 23	Beginning lost in changing the paper				
	iS	6 48 00			
	i	20			
	i	50 30			
	M	7 23 10	27	+ 31	
	F	9.9			
/ 24	P	14 08 28			
	eS	10 15			
	F	14.6			
/ 26	eP	19 43 20			
	S	52 42			
	M	20 13 18	20	+ 23	
	F	21.2			
/ 26	P	23 14 12			
	S	20 50			
	M	36 00	20	+ 11	
	F	24.5			
/ 29	eP	18 51 45			Preceded & confused with microseisms
	S _c P _c S	19 02 05			
	S _c S	03 25			
	F	21.8			
Tremors were also recorded at:					
	D	H	D	H	D
	4	7	10	3	13
	23	0,21	26	10	29
	H	D	H	D	H
	14,20	22	4		
	20	31	7		

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SEISMOGRAPH RECORDS

For the Month of November, 1936

FROM HELWAN OBSERVATORY, EGYPT

 $\varphi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E—W motion

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 193 <u>6</u>	PHASE	TIME			PERIOD s.	AMPLITUDE A_E μ	REMARKS
		h.	m.	s.			
2	P F	6	38	20			Preceded with microseisms
		7.1					
2	1 F	9	32	40			" " "
		10.3					
2	op 1 S M F	15	10	25	18	± 25	" " "
				45			
			21	15			
			55	09			
		18.7					
2	P pP PR ₁ S SS 1 M F	20	58	32	20	± 57	" " "
				55			
		21	01	56			
			09	00			
				30			
			16	05			
			40	29			
		0.5					
12	1 1 F	20	17	10	20.8		" " "
			27	20			
		20.8					
13	1P PR ₁ S ₁ PS M F	12	44	05	10	± 36	
			47	30			
			54	30			
			55	30			
		13	37	02			
		16.5					
18	1 1 1 F	15	53	30	16.7		" " "
			55	40			
			59	33			
		16.7					
19	op PR ₁ S _{op} P _c S e PS M F	22	24	50	20	± 14	
			29	17			
			35	25			
			36	20			
			38	35			
		15	15	45			
		1.0					

DATE 1936	PHASE	TIME h. m. s.	PERIOD s.	AMPLITUDE A _E μ	REMARKS				
22	e e F	18 27 30 47 33 21.1			Preceded & confused with microseisms				
28	e e F	21 46 06 49 10 22.4			" " " "				
Tremors were also recorded at:									
D 1 12 29	H 17 9 9,10	D 3 14	H 5,16 20	D 4 15	H 8,10,20 22,23	D 6 22	H 21 16	D 11 23	H 17 2,19

SEISMOGRAPH RECORDS

For the Month of December, 1936

FROM HELWAN OBSERVATORY, EGYPT

 $\varphi = 29^{\circ} 51' N$, $\lambda = 31^{\circ} 20' E$, $h = 115$ m.Director Dr. M. R. Madwar

Seismograph Milne-Shaw recording E—W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12^s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 193 <u>6</u>	PHASE	TIME			PERIOD	AMPLITUDE A _E	REMARKS
		h.	m.	s.	s.	μ	
1	(PR ₁) (ScPoS) (PS) e M F	0	03	15 09 12 15 43	17	± 9	Preceded with microseisms
		2.5					
1	e i	4	22	12 30			
13	i i i i F	21	49	06 30 06 05			
		23.0					
19	i i i F	11	55	29 30 12			" " "
		12.1					
26	i e i i i M F	23	12	44 48 22 48 54	24	± 16	
		24	16	48			
		2.0					
29	i F	15	08	00			Lines overlapping
		17.6					
Tremors were also recorded at:							
	D	H	D	H	D	H	
	14	4	20	3.19	21	20	