

## SEISMOGRAPH RECORDS.

For the Month of January, 1936

FROM HELWAN OBSERVATORY, EGYPT.

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

Director Dr. M. H. Madwar

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12<sup>0</sup>.0.

Times are expressed in Greenwich Civil Mean Time.

DATE 19	PHASE.	TIME. h. m. s.	PERIOD. s.	AMPLITUDE $A_E$ μ.	REMARKS.
January 2	eP	18 39 58	7		preceded by microseisms
	sS	18 40 28			
	(SP)	18 40 43			
	PS	18 41 14			
	P	18 41 50			
2/3	eP	22 45 36	26	± 221	
	S	22 46 47			
	L	23 06 45			
	M	23 14 50			
	M <sub>3</sub>	23 16 58			
	P	1.8			
8	P	12 39 05	13	± 18	
	S	12 42 34			
	H	12 47 45			
	P	13.3			
14	e	14 25 36			
	i	14 35 12			
	i	14 36 05			
	i	14 36 42			
	i	14 39 30			

## SEISMOGRAPH RECORDS.

For the Month of January, 19 26

## 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<sup>0</sup>.0.

Times are expressed in Greenwich Civil Mean Time.

DATE 19	PHASE.	TIME. h. m. s.	PERIOD. s.	AMPLITUDE $A_E$ .	REMARKS.
January Cont. 14	i	14 39 20			
	P	15.4			
14	e	15 00 42			Very weak
	i	15 03 25			
	P	20.3			
15	e	15 03 00			Very weak
	e	15 06 16			
	i	15 06 46			
	P	17.3			
16	e	8 09 13			
	s	8 12 22			
	L	8 15 00			
	N	8 17 43	15	± 12	
17	IP	17 09 24			
PP	PeP	17 09 42		PeP	
	pP	17 10 00			
	PR	17 13 22			
	Seres	17 19 55			
	SePePes	17 20 22			

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For the Month of January , 19 26

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

Director Dr. H. R. Madwar

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

Period of undamped pendulum = 12<sup>0</sup>.0.

Times are expressed in Greenwich Civil Mean Time.

DATE 19	PHASE.	TIME. h. m. s.	PERIOD. s.	AMPLITUDE $A_E$ . $\mu$ .	REMARKS.
January Cont. 20	S	17 20 45			
	S	17 22 05			
	L	17 45 22			
	P	19 7			
					Aqvi has an error
TREMORS were also recorded at :-					
	D H	D H	D H		
	16 6	16 8	16 10		
	23 14	27 17	27 20		

## SEISMOGRAPH RECORDS.

For the Month of February, 1936

## 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<sup>0</sup>.0.

Times are expressed in Greenwich Civil Mean Time.

DATE 193	PHASE.	TIME. h. m. s.	PERIOD. s.	AMPLITUDE $A_E$ . μ.	REMARKS.
February 7	eP	9 06 33			Confused with microseisms
	iPR,	08 50			
	iPR <sub>2</sub>	10 18			
	eS	14 45			
	PS	15 09			
	e	16 13			
	SR <sub>2</sub>	20 47			
	L	25 25			
10	F	12.0			very weak & preceded by microseisms
	e	18 24 25			
	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			
	SCPCE	11 36			
	IS	12 43			

## SEISMOGRAPH RECORDS.

For the Month of February, 1936

## 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<sup>0</sup>.0.

Times are expressed in Greenwich Civil Mean Time.

DATE 19	PHASE.	TIME. h. m. s.	PERIOD. s.	AMPLITUDE $A_E$ .	REMARKS.
February Cont. 15	PS	13 14 15		$\mu$	
	M,	51 12	18	$\pm$ 86	
	M <sub>2</sub>	53 00	21	$\pm$ 114	
	M <sub>3</sub>	55 50	23	$\pm$ 132	
	F	16.2			
16	e	14 34 27			
	e	39 42			
	F	15.2			
17	P	16 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			

## 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<sup>0</sup>.0.

Times are expressed in Greenwich Civil Mean Time.

DATE 19	PHASE.	TIME.			PERIOD. s.	AMPLITUDE $A_E$ .	REMARKS.
		h.	m.	s.			
February 24	e	16	32	54		μ.	
	e	38	06				
	F	17	1				
27	e	10	17	38		μ.	Preceded by micro-seisms
	e	27	55				
	F	12	9				
28	i	16	38	30		μ.	
	e	39	40				
	e	40	47				
	F	17	7				
Small tremors were also recorded at :-							
D	H	D	H	D	H	D	H
2	16	3	03	5	04	6	22
7	13	6	03	8	13	11	05
18	15	16	21	21	02	21	18
18	03	28	04			22	20
						22	21

## SEISMOGRAPH RECORDS

For the Month of March , 193

## 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<sup>0</sup>.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
March 1	e	10 33 50			Preceded with microseisms
	P	35 15			
	S <sub>c</sub> P <sub>c</sub> P <sub>c</sub> S	43 16			
	L	11 08 28			
	M	21 22	15	± 11	
	F	13.4		.	
2	P	3 31 43			minutes cutting, not certain
	S <sub>c</sub> P <sub>c</sub> S	42 03			
	S	25			
	L	4 06 04			
	M	17 04	20	± 17	
	F	Lost in changing the paper			
13	P <sub>n</sub>	13 02 09			Local
	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 = 12s.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.			
March Cont. 21	F	3.3					
22	e	4	46	35			
	F	6	.1				
23	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
4	16	6	15		10	9	21
17	21	18	12		18	26	15
							27
							3

## SEISMOGRAPH RECORDS

For the Month of April , 1936

## 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<sup>8</sup>.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	2 22 37	s.	$\mu$	
	pP	23 00			
	PR	25 52			
	iS	33 05			
	ss ?	33 45			
	M	3 11 45	16	$\pm 108$	
	F	6.0			
1	P	20 24 06			
	S	34 38			
	F	22.9			
9	e	16 23 45			
	F	18.5			
12	p e	0 1 33			
	i	52			
	F	0.7			
12	P	21 4 49			
	e	5 42			
	e	11 02			
	S	17 57			
	e	18 40			
	F	23.9			

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## SEISMOGRAPH RECORDS

For the Month of April, 1936

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Director

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—	PHASE	TIME h. m. s.	PERIOD s.	AMPLITUDE $A_E$ μ	REMARKS	
April 17	P	22 20 10	10	± 10	Lines overlaping	
	S	24 02				
	M	29 50				
	F	-				
19	e	5 22 45	20	± 37	Lost in changing the paper	
	i	26 53				
	F	9.2				
19	eP	9 14 10	20	± 37	Beginning confused with the end of the preceding	
	M	41 39				
	F	11.5				
21	P	2 19 20	14	± 29	Preceded with tremors	
	iS	23 40				
	M	29 51				
	F	3.5				
23	i	10 8 25			Preceded with strong microseisms Lines overlaping	
	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 = 12s.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.			
April 28	e	23	17	15			
	iS		18	38			
	F		23	.6			
Tremors were also recorded at :-							
D	H	D	H	D	H	D	H
2 7,8,9	8	5	9	8,9	11	4	13
14 18	15	16	16	17	20	19	24
26 10	28	6,7,614	29	17			14,19

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## SEISMOGRAPH RECORDS

For the Month of May, 1936

## FROM HELWAN OBSERVATORY, EGYPT

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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 h. m. s.	PERIOD s.	AMPLITUDE $A_E$ $\mu$	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			
	ss	32 56			
	i	33 55			
	F	10.3			
11	P	17 47 42			Felt in Mongalla (Sudan)
	F	20.4			
16	eP	7 04 04			
	iS	16 03			
	PPS	18 18			
	SR	23 32			
	SR <sub>2</sub>	27 43			
	L	38 00			
	M	46 22	17	37	

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## SEISMOGRAPH RECORDS

For the Month of May, 1936

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

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Theoretical magnification = 250.

Period of undamped pendulum = 12<sup>0</sup>.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
May 19	eP	7 34 18			Preceded with microseisms
	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			
20/20	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		+ 12	Preceded with microseisms
	e	44 40			
	e	45 40			
	M	1 27 22			
	F	2.9			
23	P	22 30 18			Local (very small)
23	Very weak earthquake.				

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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

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Theoretical magnification = 250.

Period of undamped pendulum = 12<sup>0</sup>.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

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

## SEISMOGRAPH RECORDS

For the Month of June, 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<sup>0</sup>.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 1936	PHASE	TIME h. m. s.	PERIOD s.	AMPLITUDE $A_E$ $\mu$	REMARKS
June 9	P	16 47 45			
	S	56 55			
	M	17 16 42	23	± 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	± 29	
	F	5.0			
10	E	8 37 38			
	PR.	43 23			
	SePePeS	50 27			Preceded & confused with microseismo.
	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	~	
	F	15.3		± 5	
10	e	17 17 15			
	e	48			
	e	22 05			
	M	31 19	12	~	
	F	18.2		± 12	

## SEISMOGRAPH RECORDS

For the Month of June, 1936

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Theoretical magnification = 250.

Period of undamped pendulum = 12<sup>0</sup>.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.			
11	P			-	13	+9	Preceded & confused with microseisms
	e	9	54	40			
	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 intervals not distinct.
	M		37	30			
	F	1.5					
14	eP	17	03	27			Precede with microseisms.
	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.

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## SEISMOGRAPH RECORDS

For the Month of June, 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<sup>0</sup>.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9892 A. 1935-300 ex.

DATE 1936	PHASE	TIME h. m. s.	PERIOD s.	AMPLITUDE $A_E$ μ	REMARKS
29	iP	14 36 31			
	PR	37 45			
	S	41 35			
	M	51 08	20	+ 20	
	F	16.0			
June					
30	iP	15 19 27			
	i	23 00			
	i	26 50			
	SeP	29 52			
	Pes	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 10 20	H 12 20 7	D 3 14 25	H 4,10 4 11	D 5 16 27	H 13 1,16 14
D H D H D H		D 17 9 18 16 19		D 7 9 17	

A/F.

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## SEISMOGRAPH RECORDS

For the Month of August, 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 = 12s.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.			
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			
	?		5.3				
13	iP	20	15	41			
	S		26	35			
	M	21	04	00	18	$\pm$ 18	
	F		23.1				
16	P	21	41	55			
	S		46	00			
	M		52	42	6	$\pm$ 10	
	F		22.4				
19	eP	12	06	05			
	eS		09	34			
	M		14	48	9	$\pm$ 6	Preceded with microseisms
	F		12.4				
20	Pr <sub>1</sub>	2	12	48			" "
	S		16	20			
	e		38				
	M		21	32	10	$\pm$ 13	
	F		3.0				
22	iP	7	03	42			
	Pr <sub>1</sub>		06	45			
	i		07	35			
	S		13	37			
	PS ?			57			
	M		45	51	18	$\pm$ 43	
	F		10.4				
23	eP	21	22	46			
	Pr <sub>2</sub>		26	06			
	iS		31	00			
	M		46	17	25	$\pm$ 249	
	F		0.2				

## SEISMOGRAPH RECORDS

For the Month of August ( Cont ), 1936

## FROM HELWAN OBSERVATORY, EGYPT

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

Seismograph Milne-Shaw recording E-W motion

Theoretical magnification = 250.

Period of undamped pendulum = 12<sup>0</sup>.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.	$\mu$
<b>Tremors were also recorded at :-</b>								
		d	h	d	h	d	h	d
2		23		3	4, I4	9	9, I7	10
I2		22		I5	I7	I4	23	I5
I6		I7		I7	( 7, I4, I5, I6 )			23
24		23		25	00, 2I	26	23	28
29		2, 23						00, 3, 7

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## SEISMOGRAPH RECORDS

For the Month of September, 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<sup>0</sup>.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 1936	PHASE	TIME			PERIOD	AMPLITUDE $A_E$	REMARKS
		h.	m.	s.			
Sept 4	eP PR (SePcPS)	8 22	25				Preceded with microseisms
		26	12				
		33	12				
	S		56				
	PS	34	32				
	M	9 10	24		17	$\pm 7$	
	F	9.7					
5	e	22 57	50				Very weak
	e	23 02	48				
	F	23.3					
6	P	17 59	48				
	e	18 10	20				
	F	20.3					
7	eP	8 58	07				Preceded with microseisms
	iS	9 02	47				Lines overlapping
	F						
18	eP (SePcPS)	18 51	30				Preceded & Confused with microseisms
		19 02	03				
	S		19				
	F	20.2					
19	iP	1 12	40				Greater part of the paper lost, due to defective paper
	e	13	20				
	e	14	00				
	e	16	37				
	M	43	07		20	$\pm 201$	
	F	4.7					
19	e	6 41	20				Preceded & confused with microseisms
	S	50	16				
	e	51	10				
	M	7 10	25		15	$\pm 9$	
	F	8.3					
21	P	II 44	07				
	e	46	47				
	F	13.4	-				

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## SEISMOGRAPH RECORDS

For the Month of September (Cont), 1936

FROM HELWAN OBSERVATORY, EGYPT

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

Director Dr. M.R. Madwar

Seismograph Milne-Shaw recording E-W motion

Theoretical magnification = 250.

Period of undamped pendulum = 12s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 1936	PHASE	TIME			PERIOD	AMPLITUDE $A_E$	REMARKS	
		h.	m.	s.				
Tremors were also recorded at:-								
D	H	D	H		D	H	D	H
I	10 Local	2	8 Local	3	I3, I4		5	5, 23
7	3	8	I7	I2	I9		I6	II
I7	I9	20	9	22	I2		25	I4

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## SEISMOGRAPH RECORDS

For the Month of October, 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 = 12.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

DATE 1936	PHASE	TIME			PERIOD	AMPLITUDE $A_E$	REMARKS
		h.	m.	s.			
Oct / 5	e	0	13	27			
	e			50			
	e			50			
	P			02			
	F		2.6				
/ 5	1P	0	21	23			
	S		21	42			
	e		22	00			
	P		7.6				
/ 5	1P	0	57	40			
	1		58	00			
	PR <sub>1</sub>	10	01	25			
	S		08	11			
	P		45				
	S		37	10	25	$\pm 66$	
	P		12.0				
11	e	16	28	15			
	e		29	15			
	P		17.0				
/ 15	eP	21	28	40			
	e		31	25			
	PR <sub>2</sub>		34	20			
	e		38	40			
	M	22	32	15	15	$\pm 7$	
	F	25.3					
/ 16	P	12	16	45			
	F		14.4				
17	P	3	15	02			
	S		19	03			
	F		3.9				
/ 18	P	12	17	48			
	e		21	35			
	S		28	20			
	M	13	05	17	25	$\pm 31$	
	F	15.0					

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## SEISMOGRAPH RECORDS

For the Month of October (Cont.) , 193

## 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 = 12s.0.

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2955-1936-700 ex.

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

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