

## SEISMOGRAPH RECORDS.

For the Month of JANUARY, 1921932

FROM HELWAN OBSERVATORY, EGYPT.

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

Seismograph Milne-Shaw recording E—W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9753 A, 1928-400 ex.

DATE 192 .	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A <sub>E</sub> . μ.	REMARKS.
		h.	m.	s.			
<b>1932</b>							
/ Jan. 2	P S F	23	40	11 41 4h			
Jan. 7	iP M F	16	52	38 43 0h	< 4	+ 14	Local
Jan. 9	P F	Lo	41	22 2h			
Jan. 18	P M F	18	07	35 52 2h	< 4	+ 12	Local
/ Jan. 22	P eS M F	00	52	20 50 12 2h	4	+ 14	
/ Jan. 29	P e M F	14	01	25 25 26 4h	22	+ 44	
Jan. 31	P eS M F	12	12	33 40 40 1h	6	+ 11	

Smaller tremors were also recorded at :

1d 00h. 1d 21h. 2d 17h. 3d 08h. 3d 14h. 4d 12h. 5d 01h. 5d 02h.  
 6d 17h. 7d 22h. 8d 06h. 10d 01h. 13d 16h. 17d 08h. 18d 13h. 18d 21h.  
 20d 02h. 24d 04h. 25d 02h. 30d 03h. 30d 11h. 30d 17h. 30d 19h. 30d 20h.  
 30d 21h. 30d 22h. 30d 23h. 31d 01h. 31d 03h. 31d 04h. 31d 05h. 31d 08h.  
 31d 11h. 31d 14h. 31d 15h. 31d 16h. 31d 20h. 31d 23h.

N.B. The meteorological observer at Jibuti reported many shocks  
 on January 30th. 1932

## SEISMOGRAPH RECORDS.

For the Month of FEBRUARY, 1922 1932

FROM HELWAN OBSERVATORY, EGYPT.

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

Seismograph Milne-Shaw recording E—W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2753 A, 1928-400 ex.

DATE 192 .	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A <sub>E</sub> . $\mu$ .	REMARKS.
		h.	m.	s.			
1932							
Feb. 1	P	7	43	10	10	$\pm 19$	
	iS	7	47	10			
	L	7	50	20			
	M	7	52	51			
	F	8.8h					
Feb. 3	P	6	29	20	20	$\pm 23$	
	S	6	39	58			
	M	7	15	05			
	F	9.0h					
Feb. 3	e	19	49	28	8	$\pm 3$	
	M	19	54	32			
	F	20.7h					
Feb. 11	e	11	46	05	10	$\pm 12$	Probably a 2nd earth- quake.
	e	11	50	02			
	M <sub>1</sub>	11	55	42			
	M <sub>2</sub>	12	08	41			
	F	13.2h					
Feb. 12	eP <sub>1</sub>	1	04	32	15 13	$\pm 24$ $\pm 22$	
	eS	1	09	28			
	L	1	14	15			
	M <sub>1</sub>	1	15	25			
	M <sub>2</sub>	1	17	27			
	F	2.7h					
Feb. 14	eP	23	23	40			
	i(S)	23	31	50			
	L	23	38	21			
	F	24.7h					
Feb. 23	e	0	30	32	20	$\pm 86$	
	(S)	0	37	45			
	e	0	44	42			
	M	25	01	38			
	F	2.5h					

Smaller tremors were also recorded at :

1d 03h. 1d 04h. 1d 06h. 1d 09h. 1d 10h. 1d 19h. 2d 14h. 2d 19h.  
 3d 13h. 3d 17h. 4d 21h. 5d 14h. 5d 17h. 5d 23h. 6d 07h. 15d 10h.  
 16d 14h. 17d 17h. 19d 02h. 20d 16h. 20d 18h. 20d 19h. 21d 01h. 21d 13h.  
 h. 23d 21h. 26d 11h. 27d 01h. 27d 11h.

## SEISMOGRAPH RECORDS.

For the Month of MARCH 1932., 192   .

FROM HELWAN OBSERVATORY, EGYPT.

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

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 3753 A, 1928-400 ex.

DATE 192 .	PHASE.	TIME.			PERIOD. s.	AMPLITUDE	REMARKS.
		h.	m.	s.		A <sub>E</sub> .	
March 15	1P	10	21	31	10	$\pm$ 13	
	eS	10	26	05			
	L	10	29	10			
	H	10	31	33			
	F	11.3h.					
" 26	P	00	11	32	20	$\pm$ 17	
	iS	00	22	12			
	H	00	56	36			
	F	3.2h.					
" 26	eP	10	06	10	22	$\pm$ 36	
	iS	10	16	40			
	L	10	50	25			
	H	10	52	06			
	F	12.9h.					
Smaller tremors were also recorded at :-							
4d 23h. 5d 03h. 6d 00h. 6d 22h. 7d 00h. (Local). 7d 3h; 7d 14h. 8d 5h.							
8d 18h. 9d 10h. 10d 6h. 12d 9h. 14d 11h. 14d 22h. 15d 4h. 15d 7h.							
16d 2h. 16d 21h. 16d 22h. 18d 5h. 19d 11h. 20d 01h. 21d 20h. 21d 22h.							
23d 4h. 23d 13h. 24d 16h. 26d 7h. 27d 9h. 27d 17h. 28d 00h. 30d 06h.							
31d 14h.							

## SEISMOGRAPH RECORDS.

For the Month of APRIL, 1932

FROM HELWAN OBSERVATORY, EGYPT.

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

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 4730 A, 1929-300 ex.

DATE 19 <u>32</u>	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A <sub>E</sub> . μ.	REMARKS.
		h.	m.	s.			
April 4	P	19	28	45			
	IS	19	38	32			
	F	20.7h					
April 18	e	11	29	28			
	S	11	34	40			
	M	11	43	55	15	± 36	
	F	12.6h					
April 26	e	8	14	05			
	eS	8	23	40			
	M	9	04	40	16	± 8	
	F	9.7h					
April 30	e	1	15	45			
	eS	1	23	22			
	M <sub>1</sub>	1	39	30	12	± 5	
	M <sub>2</sub>	1	43	50	15	± 7	
	F	2.5h.					

Smaller tremors were also recorded at :

1d 1h. 1d 5h. 1d 19h. 3d 21h. 4d 15h. 6d 9h. 8d 10h. 8d 13h. 10d 7h.

11d 10h. 11d 13h 34m 50s (Local). 12d 7h. 13d 00h. 13d 4h. 13d 8h 23m

44s (Local). 14d 1h. 14d 12h. 16d 11h. 18d 18h. 22d 5h. 25d 8h. 26d 2h.

27d 1h. 27d 23h. 28d 5h. 29d 17h.

# SEISMOGRAPH RECORDS.

For the Month of MAY, 192 1932

## FROM HELWAN OBSERVATORY, EGYPT.

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

Director P. A. CURRY

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9753 A, 1928-400 ex.

DATE 192	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A <sub>E</sub> . μ.	REMARKS.
		h.	m.	s.			
/ May 7	P	14	57	20	9	± 4	
	S	15	01	08			
	M	15	04	36			
	F	15.5h					
/ May 14	eP	3	46	30	< 4	± 12	
	iS	3	47	45			
	M <sup>1</sup>	3	47	50			
	M <sup>2</sup>	3	53	15			
	F	4.3h					
/ May 14	iP	13	24	17	20	± 400	
	iPS	13	34	32			
	M <sup>1</sup>	13	42	00			
	M <sup>2</sup>	14	07	22			
	F	18.0h					
/ May 20	iP	19	20	41	15	± 15	
	iS	19	24	32			
	M	19	29	41			
	F	20.5h					
/ May 21	eP	10	24	23	20	± 46	
	iPr	10	28	52			
	iScPos	10	34	56			
	Sr	10	38	12			
	L	11	05	00			
	M	11	14	56			
	F	13.3h					
/ May 21	eP	16	01	35	11	± 14	
	eS	16	09	03			
	L	16	18	00			
	M	16	21	16			
	F	17.2h					
/ May 26	eP	16	27	28	12	± 35	
	S	16	34	50			
	M	16	45	52			
	F	20.5h					

Smaller tremors were also recorded at :

1d 2h. 1d 4h. 1d 5h. 1d 17h. 3d 00h. 3d 9h. 4d 2h. 5d 4h. 5d 9h. 6d 5h. 6d 17h.  
 10d 1h. 10d 14h. 10d 21h. 11d 4h. 11d 7h. 12d 5h. 14d 9h. 14d 10h. 15d 16h.  
 17d 11h. 17d 13h. 18d 19h. 21d 13h. 20m 33s Local. 21d 14h 34m 33s Local.  
 21d 22h. 22d 11h. 22d 17h. 22d 23h. 23d 4h 12m 16s Local. 23d 16h 43m 01s Local.  
 23d 18h. 24d 14h. 24d 23h. 26d 5h. 26d 22h. 27d 1h. 27d 10h. 27d 11h. 27d 11h.

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## SEISMOGRAPH RECORDS.

For the Month of JUNE, 1928

FROM HELWAN OBSERVATORY, EGYPT.

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

Seismograph Milne-Shaw recording E—W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 3753 A, 1928-400 ex.

DATE 192 <u>8</u>	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A <sub>E</sub> . $\mu$ .	REMARKS.
		h.	m.	s.			
/ June 3	eP	10	52	02	20	$\pm 225$	Doutful, confused with waves of the following hour.
	Pr	10	56	49			
	S	11	06	25			
	M	11	50	48			
	P	15.0h					
/ June 7	eP	22	07	08	10	$\pm 5$	
	eS	22	09	03			
	R	22	12	08			
	P	22.4h					
/ June 10	eP	20	34	29	10		
	S	20	44	53			
	P	21.6h					
/ June 11	eP	08	36	29	12	$\pm 28$	
	IS	08	43	19			
	M	08	48	40			
	P	09.4h					
/ June 13	eP	21	09	40	15	$\pm 6$	
	S	21	19	49			
	M	21	49	40			
	P	22.5h					
/ June 14	P	06	11	46			
	S	06	21	52			
	P	07.2h					
/ June 16	P	01	29	37	20	$\pm 70$	
	S	01	38	37			
	M	01	59	36			
	P	02.6 h					
/ June 18	eP	10	27	28	20	$\pm 140$	
	Pr	10	32	00			
	[S]	10	38	09			
	SR	10	41	52			
	L	11	15	52			
	P	11	26	00			
	P	15.0h					

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# SEISMOGRAPH RECORDS.

For the Month of JUNE, 1922

## FROM HELWAN OBSERVATORY, EGYPT.

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

Director P. A. Curry

Seismograph Milne-Shaw recording E—W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 9753 A, 1928-400 ex.

DATE 192	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A <sub>E</sub> . μ.	REMARKS.
		h.	m.	s.			
June 22	22	13	19	08			
	Pr	13	25	15			
	18	13	29	02			
	M	14	09	20	22	+	
	P	16.1h				- 21	

Smaller tremors were also recorded at:  
 1 1 1h. 2d 20h. 3d 0h. 3d 18h. 4d 2h. 4d 14h. 5d 9h.  
 5d 13h. 6d 5h. 6d 9h. 6d 12h. 6d 16h. 8 8h. 8d 11h. 8d 14h.  
 8d 15h. 9d 7h. 10d 6h. 11d 7h. 11d 17h. 12d 23h. 14d 10h. 14d 11h  
 14d 13h 24 42 Local. 16d 18h. 16d 23h. 18d 1h. 18d 6h. 18d 18h.  
 18d 21h. 19d 15h. 20d 4h 20h 5/1h. 20d 6h. 21d 7h. 21d 5h. 21d 8h.  
 22d 0h 22d 1h. 23d 2h. 24d 9h 20m 7s Local. 25d 2h. 26d 19h.  
 28d 17h. 29d 12h. 29d 9h. 29d 16h. 29d 18h. 30d 12h. 30d 15h.

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# SEISMOGRAPH RECORDS.

For the Month of JULY, 1922

## FROM HELWAN OBSERVATORY, EGYPT.

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

Director P.A. CURRY

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 2753 A, 1928-400 ex.

DATE	PHASE.	TIME.	PERIOD.	AMPLITUDE A <sub>E</sub> .	REMARKS.
192 <u>2</u> July 7	eS K E L M P	16 <sup>h.</sup> 44 <sup>m.</sup> 40 <sup>s.</sup> 16 50 56 16 55 00 17 10 00 17 20 47 19.2h	s.    25	$\mu$ .    + 20	
July 12	E L M P	19 43 26 19 59 27 20 31 30 22.3h	22	+ 15	
Smaller tremors were also recorded at:					
	d	h	d	h	
	2	2	15	8	
	2	4	15	15	
	2	12	15	21	
	2	14	16	7	
	2	21	16	21	
	3	2	19	4	2m Local
	3	3	19	4	11m Local
	3	18	20	20	
	4	3	21	8	
	5 // 4	15	21 // 13	15	
	5	23	21	17	
	7	8	21	20	
	8	9	22	2	
	9	13	22	21	
	9	20	24	19	
	10	1	25	2	
	10	7	25	8	
	11 //	8	25	9	
	13	9	27	21	
	13	10	29	1	
	14	9	29	21	
			30	12	

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## SEISMOGRAPH RECORDS.

For the Month of November 1932, 1922.

FROM HELWAN OBSERVATORY, EGYPT.

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

Seismograph Milne-Shaw recording E—W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 3753 A, 1928-400 ex.

DATE 192 .	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A <sub>E</sub> . $\mu$ .	REMARKS.
		h.	m.	s.			
November 1st	eP	16	22	27			
	eS	16	24	45			
	L	16	30	40			
	F	17.0h					
" 2nd	P	11	23	05	20	± 13	P. & S. probably marked by waves from previous earth quake
	M	12	29	49			
	F	13.5h					
" 13th	1P	4	58	33			
	1S	5	08	05			
	F	7.5h					
" 26th	eP	4	36	30			
	1S	4	46	41			
" 29th	eP	11	30	50	17	± 36	
	S	11	40	11			
	L	12	13	10			
	M	12	23	29			
	F	13.5h					
----- <u>Smaller Tremors were also recorded at</u>							
<u>Date</u>	<u>Hour</u>	<u>Remarks</u>	<u>Date</u>	<u>Hour</u>	<u>Remarks</u>		
1	11		25	23			
3	20		26	17			
5	12		27	4			
8	5		28	14 57 <sup>a</sup>	Local		
9	18		28	19 54 42 <sup>b</sup>	Local		
11	9 58	Local	29	2			
11	18		29	3			
13	16		29	7			
14	1		29	18 19 <sup>a</sup>	Local		
14	20		29	20 49 50 <sup>b</sup>	Local		
15	14		30	4			
17	4		30	5			
18	14		30	7			
21	18		30	11			
22	15						
23	23						

## SEISMOGRAPH RECORDS.

For the Month of December, 19 33

## FROM HELWAN OBSERVATORY, EGYPT.

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

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 4730 A, 1929-300 EX.

DATE 19 .	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A <sub>E</sub> . μ.	REMARKS.
		h.	m.	s.			
Dec. 4th	SP	4	13	45	15	9	
	S	4	21	41			
	M	4	40	46			
	F	5.8	h.				
" 4th	1P	8	24	07	13	59	
	1S	8	34	57			
	L	8	7	26			
	M	9	09	08			
" 4th	1P	10	45	51	20	8	Superposed on = remain- der of record of pre- vious earthquake.
	1S	10	56	35			
	M	11	29	51			
	F	12.3	h.				
" 7th	e	7	57	55	24	20	Local earthquake felt in Cairo.
	1S	7	58	47			
	L	7	58	53			
	F	8.3					
" 7th	e	16	41	42	20	11	
	SP?	16	51	33			
	M	17	39	17			
	F	19.3	h.				
" 19th	e	15	19	55	8	21	
	S	15	21	18			
	M	15	21	39			
	F	15.9	h.				
" 21st	L	7	4	00	22	47	P. & S. lost in changing paper
	M <sub>1</sub>	7	12	37			
	M <sub>2</sub>	7	35	25			
	M <sub>3</sub>	7	39	05			
	M <sub>4</sub>	7	46	46			
	F	9.8	h.				
" 25th	1P	2	13	47	16	140	
	1S	2	21	23			
	M <sub>1</sub>	2	40	41			
	M <sub>2</sub>	2	42	46			
	M <sub>3</sub>	2	44	12			
	F	6.5	h.				

# SEISMOGRAPH RECORDS.

For the Month of December, 19 32

## FROM HELWAN OBSERVATORY, EGYPT.

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

Director \_\_\_\_\_

Seismograph Milne-Shaw recording E-W motion.

Theoretical magnification = 250.

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

Times are expressed in Greenwich Civil Mean Time.

Govt. Press 4730 A, 1929-300 ex.

DATE 19	PHASE.	TIME.			PERIOD. s.	AMPLITUDE A <sub>E</sub> μ.	REMARKS.
		h.	m.	s.			
Dec. 25th	e	19	4	58	13	± 8	
	18	19	5	56			
	M	19	6	15			
	P	19.5 h					
31st	e	6	40	50	13	± 160	No record between 6h-51m and 6h-59m owing to changing of paper.
	1	6	49	01			
	M	7	03	06			
	P	8.5 h					
Smaller tremors were also recorded at _____							
<u>Day</u>	<u>Hour</u>	<u>Remarks</u>	<u>Day</u>	<u>Hour</u>	<u>Remarks</u>		
1	20						
2	22						
3	7						
3	8						
3	18						
5	22						
8	15						
8	16						
9	9						
9	16						
10	4						
10	10						
10	11						
11	4						
11	13						
15	19						
16	7						
17	18						
19	7						
23	14						
24	4						
24	7						
28	9						
28	21						
30	21						

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