

# ANNALES DE L'OBSERVATOIRE ROYAL DE BELGIQUE.

181

| DATES.      | PHASES.        | HEURES.                                         | T               | AMPLITUDES. |       |       | $\Delta$    | REMARQUES.    |
|-------------|----------------|-------------------------------------------------|-----------------|-------------|-------|-------|-------------|---------------|
|             |                |                                                 |                 | $A_N$       | $A_E$ | $A_Z$ |             |               |
| <b>1910</b> |                |                                                 |                 | $\mu$       | $\mu$ | $\mu$ |             |               |
| 1/1         | P              | 11 <sup>h</sup> 13 <sup>m</sup> 44 <sup>s</sup> |                 |             |       |       | 9100 Klm. ? |               |
|             | (S)            | 23 59                                           |                 |             |       |       |             |               |
|             | M              | 56 35                                           | 18 <sup>s</sup> |             | + 16  |       |             |               |
|             | F              | 12 25                                           |                 |             |       |       |             |               |
| 8/1         | eL             | 15 32                                           |                 |             |       |       |             |               |
|             | M              | 34 45                                           | 15              |             | - 24  |       |             |               |
|             | F              | 45                                              |                 |             |       |       |             |               |
| 22/1        | iP             | 8 52 49                                         |                 |             |       |       | 2100 Klm.   |               |
|             | iS             | 56 22                                           |                 |             |       |       |             |               |
|             | L              | 57,5                                            |                 |             |       |       |             |               |
|             | M <sub>1</sub> | 59 58                                           | 11              |             | + 220 |       |             |               |
|             | M <sub>2</sub> | 9 0 29                                          | 8               |             | + 220 |       |             |               |
|             | M <sub>3</sub> | 1 51                                            | 11              | - 240       |       |       |             |               |
|             | F              | 10 30                                           |                 |             |       |       |             |               |
| 23/1        | eP             | 18 59 59                                        |                 |             |       |       | 7200 Klm.   |               |
|             | iS             | 19 8 39                                         |                 |             |       |       |             |               |
|             | i              | 9 27                                            |                 |             |       |       |             |               |
|             | L              | 18                                              |                 |             |       |       |             |               |
|             | M              | 25                                              | 18              | 5-6         | 5-6   |       |             |               |
|             | M              | 32                                              | 16              |             | 4-5   |       |             |               |
|             | F              | 45                                              |                 |             |       |       |             |               |
| 28.1        | eP             | 23 59,5                                         |                 |             |       |       | 1250 Klm.   |               |
| 29/1        | S              | 0 1,7                                           |                 |             |       |       |             |               |
|             | F              | 6                                               |                 |             |       |       |             |               |
|             | eP             | 0 16                                            |                 |             |       |       |             | eP incertain. |
|             | F              | 19                                              |                 |             |       |       |             |               |
|             | eP             | 5 13,1                                          |                 |             |       |       |             |               |
|             | F              | 16                                              |                 |             |       |       |             |               |
| 30/1        | e              | 5 15                                            |                 |             |       |       |             |               |
|             | M              | 33                                              | 17              |             | 3-4   |       |             |               |
|             | F              | 45                                              |                 |             |       |       |             |               |

| DATES.      | PHASES. | HEURES.                         | T               | AMPLITUDES. |       |       | $\Delta$ | REMARQUES.                 |
|-------------|---------|---------------------------------|-----------------|-------------|-------|-------|----------|----------------------------|
|             |         |                                 |                 | $A_N$       | $A_E$ | $A_Z$ |          |                            |
| <b>1910</b> |         |                                 |                 | $\mu$       | $\mu$ | $\mu$ |          |                            |
| 2/II        | eL      | 11 <sup>h</sup> 44 <sup>m</sup> |                 |             |       |       |          |                            |
|             | M       | 47                              | 14 <sup>s</sup> | 1-2         | 1-2   |       |          |                            |
|             | F       | 12 0                            |                 |             |       |       |          |                            |
| 4/II        | P       | 14 20 2 <sup>s</sup>            |                 |             |       |       |          |                            |
|             | P       | 15 0 13                         |                 |             |       |       |          |                            |
|             | M       | 20-30                           | 22              | 8-10        | 8-10  |       |          |                            |
|             | M       | 46-59                           | 18              | 4-5         | 4-5   |       |          |                            |
|             | F       | 16 30                           |                 |             |       |       |          |                            |
|             | P       | 17 56 45                        |                 |             |       |       |          |                            |
|             | P       | 18 52 45                        |                 |             |       |       |          |                            |
| 12/II       | eP      | 18 22                           |                 |             |       |       |          | eP très faible.            |
|             | iS      | 32 5                            |                 |             |       |       |          | Troublé par des mouvements |
|             | L       | 56                              |                 |             |       |       |          | microsismiques.            |
|             | M       | 19 5 34                         | 12              |             | -10   |       |          |                            |
|             | F       | 20                              |                 |             |       |       |          |                            |
| 18/II       | iP      | 5 13 49                         |                 |             |       |       | 2300 Km. | Troublé par des mouvements |
|             | iS      | 17 34                           | 6               |             |       |       |          | microsismiques.            |
|             | F       | 30                              |                 |             |       |       |          |                            |
| 4/III       | (P)     | 23 3 5                          |                 |             |       |       |          |                            |
| 22/III      | e       | 2 15                            |                 |             |       |       |          |                            |
|             | F       | 20                              |                 |             |       |       |          |                            |
| 25/III      | e       | 15 51,2                         | 8               |             |       |       |          |                            |
|             | eL      | 16 11                           |                 |             |       |       |          |                            |
|             | M       | 20                              | 22              |             | 2-3   |       |          |                            |
|             | F       | 45                              |                 |             |       |       |          |                            |

ANNALES DE L'OBSERVATOIRE ROYAL DE BELGIQUE.

183

| DATES.      | PHASES.        | HEURES.                                         | T               | AMPLITUDES. |        |       | $\Delta$  | REMARQUES. |
|-------------|----------------|-------------------------------------------------|-----------------|-------------|--------|-------|-----------|------------|
|             |                |                                                 |                 | $A_N$       | $A_E$  | $A_Z$ |           |            |
| <b>1910</b> |                |                                                 |                 | $\mu$       | $\mu$  | $\mu$ |           |            |
| 30/III      | eP             | 17 <sup>h</sup> 15 <sup>m</sup> 33 <sup>s</sup> |                 |             |        |       |           |            |
|             | e              | 38                                              |                 |             |        |       |           |            |
|             | L              | 18 8                                            |                 |             |        |       |           |            |
|             | M              | 16 - 18                                         | 24 <sup>s</sup> | 10          | 10     |       |           |            |
|             | M              | 20 - 21                                         | 22              | 20          | 10     |       |           |            |
|             | M              | 23 - 26                                         | 20 - 22         | 10 - 20     |        |       |           |            |
|             | M              | 30 21                                           | 20              |             | - 15   |       |           |            |
|             | F              | 19 15                                           |                 |             |        |       |           |            |
| 31 III      | e              | 18 59                                           |                 |             |        |       |           |            |
|             | eL             | 9                                               | 51              |             |        |       |           |            |
|             | M              | 23                                              | 18              | 6 - 8       | 8 - 10 |       |           |            |
|             | F              | 20 0                                            |                 |             |        |       |           |            |
| 8/IV        | eP             | 16 53 49                                        |                 |             |        |       |           |            |
|             | (L.)           | 17 37                                           |                 |             |        |       |           |            |
| 11/IV       | e              | 8 37                                            |                 |             |        |       |           |            |
|             | M              | 45                                              | 10              |             | 2 - 3  |       |           |            |
|             | F              | 9 0                                             |                 |             |        |       |           |            |
| 12/IV       | iP             | 0 34 41                                         |                 |             |        |       | 9000 Klm. |            |
|             | iS             | 44 51                                           |                 |             |        |       |           |            |
|             | L              | 1 2                                             |                 |             |        |       |           |            |
|             | M <sub>1</sub> | 10 42                                           | 19              | - 50        |        |       |           |            |
|             | M <sub>2</sub> | 13 45                                           | 16              |             | - 30   |       |           |            |
|             | F              | 2 0                                             |                 |             |        |       |           |            |
| 17/IV       | eL             | 1 47                                            |                 |             |        |       |           |            |
|             | F              | 2 15                                            |                 |             |        |       |           |            |
| 20/IV       | eP             | 23 41 10                                        |                 |             |        |       |           |            |
|             | F              | 47                                              |                 |             |        |       |           |            |
| 27/IV       | e              | 1 47                                            |                 |             |        |       |           |            |
|             | eL             | 2 7                                             |                 |             |        |       |           |            |
|             | F              | 45                                              |                 |             |        |       |           |            |

| DATES       | PHASES. | HEURES.                                         | T               | AMPLITUDES. |       |       | $\Delta$  | REMARQUES        |
|-------------|---------|-------------------------------------------------|-----------------|-------------|-------|-------|-----------|------------------|
|             |         |                                                 |                 | $A_N$       | $A_E$ | $A_Z$ |           |                  |
| <b>1910</b> |         |                                                 |                 | $\mu$       | $\mu$ | $\mu$ |           |                  |
| 1/v         | eP      | 18 <sup>h</sup> 50 <sup>m</sup> 18 <sup>s</sup> |                 |             |       |       |           |                  |
|             | e(L)    | 19 40                                           |                 |             |       |       |           |                  |
|             | M       | 55                                              | 22 <sup>s</sup> | 6-8         | 5-7   |       |           |                  |
|             | F       | 20 45                                           |                 |             |       |       |           |                  |
| 10/v        | eL      | 14 44                                           |                 |             |       |       |           |                  |
|             | F       | 45                                              |                 |             |       |       |           |                  |
|             | e       | 18 14                                           |                 |             |       |       |           |                  |
|             | eL      | 45                                              |                 |             |       |       |           |                  |
|             | M       | 51                                              | 16              |             | 3-5   |       |           |                  |
|             | F       | 49 15                                           |                 |             |       |       |           |                  |
| 13/v        | eP      | 8 10                                            |                 |             |       |       |           | eP, très faible. |
|             | eS      | 49,2                                            |                 |             |       |       |           |                  |
|             | i       | 20,0                                            | 9               |             |       |       |           |                  |
|             | M       | 46                                              | 22              | 6-8         | 6-8   |       |           |                  |
|             | F       | 10 0                                            |                 |             |       |       |           |                  |
| 15/v        | eP      | 4 51 30                                         |                 |             |       |       |           |                  |
| 18 v        | eP      | 9 10,8                                          |                 |             |       |       | 6800 Klm. |                  |
|             | eS      | 19,1                                            |                 |             |       |       |           |                  |
|             | M       | 41                                              | 14              | 4-6         | 3-4   |       |           |                  |
|             | F       | 10 0                                            |                 |             |       |       |           |                  |
| 20/v        | eL      | 12 44                                           |                 |             |       |       |           |                  |
|             | F       | 13 15                                           |                 |             |       |       |           |                  |
| 21/v        | eP      | 7 50,7                                          |                 |             |       |       |           |                  |
|             | e       | 55,0                                            |                 |             |       |       |           |                  |
|             | M       | 8 4                                             | 10              |             |       |       |           |                  |
|             | F       | 15                                              |                 |             |       |       |           |                  |
| 22/v        | P       | 6 36 18                                         |                 |             |       |       | 8900 Klm. |                  |
|             | S       | 46 25                                           |                 |             |       |       |           |                  |
|             | eL      | 7 3                                             |                 |             |       |       |           |                  |

ANNALES DE L'OBSERVATOIRE ROYAL DE BELGIQUE.

185

| DATES. | PHASES.        | HEURES.                                        | T               | AMPLITUDES. |         |       | $\Delta$ | REMARQUES.                                                                   |
|--------|----------------|------------------------------------------------|-----------------|-------------|---------|-------|----------|------------------------------------------------------------------------------|
|        |                |                                                |                 | $A_N$       | $A_E$   | $A_Z$ |          |                                                                              |
| 1910   |                |                                                |                 |             |         |       |          |                                                                              |
| 22/v   | M <sub>1</sub> | 7 <sup>h</sup> 12 <sup>m</sup> 38 <sup>s</sup> | 17 <sup>s</sup> |             | 40      |       |          | Du 23 au 31 mai, enregistrement suspendu pour cause de travaux dans la cave. |
|        | M <sub>2</sub> | 18 37                                          | 16              | + 40        |         |       |          |                                                                              |
|        | F              | 8 0                                            |                 |             |         |       |          |                                                                              |
| 1/vi   | P              | 6 15,2                                         |                 |             |         |       |          | Superposition de deux tremblements de terre.                                 |
|        | i              | 18,9                                           |                 |             |         |       |          |                                                                              |
|        | P              | 7 53                                           |                 |             |         |       |          |                                                                              |
|        | M              | 20                                             | 23              | 10          |         |       |          |                                                                              |
|        | M              | 21                                             | 21              | 10 - 15     | 10 - 15 |       |          |                                                                              |
|        | M              | 8 12                                           | 22              |             | 10 - 20 |       |          |                                                                              |
|        | F              | 9 0                                            |                 |             |         |       |          |                                                                              |
| 7/vi   | e(P)           | 2 7,7                                          |                 |             |         |       |          |                                                                              |
|        | e              | 9,7                                            |                 |             |         |       |          |                                                                              |
|        | (L)            | 11,5                                           |                 |             |         |       |          |                                                                              |
|        | F              | 35                                             |                 |             |         |       |          |                                                                              |
|        | e              | 13 22,4                                        |                 |             |         |       |          |                                                                              |
|        | F              | 24                                             |                 |             |         |       |          |                                                                              |
|        | eL             | 15 40                                          |                 |             |         |       |          |                                                                              |
|        | F              | 16 0                                           |                 |             |         |       |          |                                                                              |
| 9/vi   | e              | 12 10,7                                        |                 |             |         |       |          |                                                                              |
|        | eL             | 36                                             |                 |             |         |       |          |                                                                              |
|        | M              | 40                                             | 22 - 24         | 10          | 10      |       |          |                                                                              |
|        | F              | 13 30                                          |                 |             |         |       |          |                                                                              |
| 12/vi  | P              | 20 41 51                                       |                 |             |         |       | 2600 Km. | S, d'après N-S.                                                              |
|        | S              | 46 5                                           |                 |             |         |       |          |                                                                              |
|        | L              | 49                                             |                 |             |         |       |          |                                                                              |
|        | F              | 21 0                                           |                 |             |         |       |          |                                                                              |
| 14/vi  | P              | 19 48 2                                        |                 |             |         |       | 3250 Km. |                                                                              |
|        | iS             | 54 57                                          |                 |             |         |       |          |                                                                              |
|        | eL             | 20 0                                           |                 |             |         |       |          |                                                                              |
|        | M              | 5 21                                           | 16              |             | - 10    |       |          |                                                                              |
|        | F              | 45                                             |                 |             |         |       |          |                                                                              |

| DATES.      | PHASES.         | HEURES.                                       | T               | AMPLITUDES. |       |       | $\Delta$  | REMARQUES.                                                                                     |
|-------------|-----------------|-----------------------------------------------|-----------------|-------------|-------|-------|-----------|------------------------------------------------------------------------------------------------|
|             |                 |                                               |                 | $A_N$       | $A_E$ | $A_Z$ |           |                                                                                                |
| <b>1910</b> |                 |                                               |                 | $\mu$       | $\mu$ | $\mu$ |           |                                                                                                |
| 16/VI       | eP              | 4 <sup>h</sup> 20 <sup>m</sup> 4 <sup>s</sup> |                 |             |       |       | 1700 Klm. |                                                                                                |
|             | eS              | 23,0                                          |                 |             |       |       |           |                                                                                                |
|             | L               | 23,7                                          |                 |             |       |       |           |                                                                                                |
|             | M <sub>1</sub>  | 25 26                                         | 12 <sup>s</sup> |             | - 200 |       |           |                                                                                                |
|             | M <sub>2</sub>  | 26 46                                         | 11              | + 200       |       |       |           |                                                                                                |
|             | F               | 5 0                                           |                 |             |       |       |           |                                                                                                |
|             | eP              | 6 50 22                                       |                 |             |       |       |           |                                                                                                |
|             | iP              | 24                                            |                 |             |       |       |           |                                                                                                |
|             | PR <sub>1</sub> | 53,8                                          |                 |             |       |       |           |                                                                                                |
|             | i               | 7 12 33                                       |                 |             |       |       |           |                                                                                                |
|             | eL              | 29                                            |                 |             |       |       |           | Mouvements très irréguliers.                                                                   |
|             | F               | 9 30                                          |                 |             |       |       |           |                                                                                                |
|             | eP              | 16 (32)                                       |                 |             |       |       |           | Données incertaines par suite de la marche momentanément défectueuse de la pendule à contacts. |
|             | S               | (35)                                          |                 |             |       |       |           |                                                                                                |
|             | L               | (36)                                          |                 |             |       |       |           |                                                                                                |
|             | M               | (37)                                          | 10              | 20 - 30     |       |       |           |                                                                                                |
|             | F               | (50)                                          |                 |             |       |       |           |                                                                                                |
| 17/VI       | eP              | 5 (40)                                        |                 |             |       |       |           |                                                                                                |
|             | eS              | (50)                                          |                 |             |       |       |           |                                                                                                |
|             | L               | 6 (16)                                        |                 |             |       |       |           |                                                                                                |
|             | F               | (45)                                          |                 |             |       |       |           | Idem.                                                                                          |
|             | eP              | 17 1 24                                       |                 |             |       |       | 8650 Klm. |                                                                                                |
|             | S               | 11 37                                         |                 |             |       |       |           |                                                                                                |
|             | e(L)            | 33                                            |                 |             |       |       |           |                                                                                                |
|             | F               | 18 0                                          |                 |             |       |       |           |                                                                                                |
|             | P               | 19 12 29                                      |                 |             |       |       |           |                                                                                                |
|             | iP              | 13 30 28                                      |                 |             |       |       | 4500 Klm. |                                                                                                |
|             | iS              | 33 8                                          |                 |             |       |       |           |                                                                                                |
|             | L               | 34,4                                          |                 |             |       |       |           |                                                                                                |
|             | M <sub>1</sub>  | 35 41                                         | 13              |             | - 160 |       |           |                                                                                                |
|             | M <sub>2</sub>  | 36 29                                         | 11              |             | + 90  |       |           |                                                                                                |
|             | M <sub>3</sub>  | 37 31                                         | 10              |             | - 90  |       |           |                                                                                                |
|             | F               | 14 45                                         |                 |             |       |       |           |                                                                                                |
| 23/VI       | P               | 19 12 29                                      |                 |             |       |       |           |                                                                                                |
| 24/VI       | iP              | 13 30 28                                      |                 |             |       |       | 4500 Klm. |                                                                                                |
|             | iS              | 33 8                                          |                 |             |       |       |           |                                                                                                |
|             | L               | 34,4                                          |                 |             |       |       |           |                                                                                                |
|             | M <sub>1</sub>  | 35 41                                         | 13              |             | - 160 |       |           |                                                                                                |
|             | M <sub>2</sub>  | 36 29                                         | 11              |             | + 90  |       |           |                                                                                                |
|             | M <sub>3</sub>  | 37 31                                         | 10              |             | - 90  |       |           |                                                                                                |
|             | F               | 14 45                                         |                 |             |       |       |           |                                                                                                |

ANNALES DE L'OBSERVATOIRE ROYAL DE BELGIQUE.

187

| DATES.      | PHASES.        | HEURES.                                         | T               | AMPLITUDES. |       |       | $\Delta$  | REMARQUES.                                                                                                                                                                                            |
|-------------|----------------|-------------------------------------------------|-----------------|-------------|-------|-------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             |                |                                                 |                 | $A_N$       | $A_E$ | $A_Z$ |           |                                                                                                                                                                                                       |
| <b>1910</b> |                |                                                 |                 | $\mu$       | $\mu$ | $\mu$ |           |                                                                                                                                                                                                       |
| 25 VI       | iP             | 19 <sup>h</sup> 25 <sup>m</sup> 53 <sup>s</sup> |                 |             |       |       | 2600 Klm. |                                                                                                                                                                                                       |
|             | iS             | 30 6                                            |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | eL             | 33                                              |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | M              | 36 9                                            | 12 <sup>s</sup> | + 20        |       |       |           |                                                                                                                                                                                                       |
|             | F              | 20 30                                           |                 |             |       |       |           |                                                                                                                                                                                                       |
| 29/vi       | eL             | 9 9                                             |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | F              | 45                                              |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | e <sub>1</sub> | 11 11                                           |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | e <sub>2</sub> | 17                                              |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | e <sub>3</sub> | 31                                              |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | e(L)           | 12 5                                            |                 |             |       |       |           | De 12 <sup>h</sup> 12 <sup>m</sup> à 12 <sup>h</sup> 50 <sup>m</sup> , séries d'ondes très régulières, de 18 <sup>s</sup> à 20 <sup>s</sup> de période et d'amplitude sensiblement égale (20 $\mu$ ). |
|             | F              | 13 30                                           |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | e(L)           | 15 43                                           |                 |             |       |       |           | De 15 <sup>h</sup> 43 <sup>m</sup> à 16 <sup>h</sup> 25 <sup>m</sup> , séries d'ondes régulières, de 16 <sup>s</sup> à 18 <sup>s</sup> de période.                                                    |
|             | F              | 16 30                                           |                 |             |       |       |           |                                                                                                                                                                                                       |
| 2/vii       | eL             | 6 28                                            |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | F              | 45                                              |                 |             |       |       |           |                                                                                                                                                                                                       |
| 5/vii       | e              | 18 54                                           |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | eL             | 19 23                                           |                 |             |       |       |           |                                                                                                                                                                                                       |
| 7/vii       | eL             | 5 13                                            |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | F              | 45                                              |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | i              | 8 41 39                                         |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | e(L)           | 9 12                                            |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | M              | 28                                              | 19              | 10-15       | 10-15 |       |           | Incomplet par suite du changement des feuilles.                                                                                                                                                       |
|             | F              | 10 15                                           |                 |             |       |       |           |                                                                                                                                                                                                       |
| 10/vii      | eL             | 15 41                                           |                 |             |       |       |           |                                                                                                                                                                                                       |
|             | M              | 51                                              | 17              | 2-3         | 2-3   |       |           |                                                                                                                                                                                                       |
|             | F              | 16 15                                           |                 |             |       |       |           |                                                                                                                                                                                                       |
| 12/vii      | eP             | 7 45,2                                          |                 |             |       |       | 5600 Klm. |                                                                                                                                                                                                       |
|             | iS             | 52 25                                           |                 |             |       |       |           |                                                                                                                                                                                                       |

| DATES.      | PHASES. | HEURES.                         | T               | AMPLITUDES.    |                |                | $\Delta$  | REMARQUES.                                                                          |
|-------------|---------|---------------------------------|-----------------|----------------|----------------|----------------|-----------|-------------------------------------------------------------------------------------|
|             |         |                                 |                 | A <sub>N</sub> | A <sub>E</sub> | A <sub>Z</sub> |           |                                                                                     |
| <b>1910</b> |         |                                 |                 |                |                |                |           |                                                                                     |
| 12/vii      | e(L)    | 22 <sup>h</sup> 21 <sup>m</sup> |                 | $\mu$          | $\mu$          | $\mu$          |           |                                                                                     |
|             | M       | 51                              | 16 <sup>s</sup> | 3-4            | 3-4            |                |           |                                                                                     |
|             | F       | 23 15                           |                 |                |                |                |           |                                                                                     |
| 13/vii      | eP      | 8 34,2                          |                 |                |                |                |           |                                                                                     |
|             | i       | 35,3                            |                 |                |                |                |           |                                                                                     |
|             | F       | 38                              |                 |                |                |                |           |                                                                                     |
| 15/vii      | e(L)    | 13 33                           |                 |                |                |                |           |                                                                                     |
|             | M       | 37                              | 20              | 3-4            |                |                |           |                                                                                     |
|             | F       | 14 0                            |                 |                |                |                |           |                                                                                     |
| 17/vii      | P       | 19 23 19 <sup>s</sup>           |                 |                |                |                |           |                                                                                     |
|             | e       | 32                              |                 |                |                |                |           |                                                                                     |
| 29/vii      | e       | 10 47,0                         |                 |                |                |                |           |                                                                                     |
|             | eL      | 11 25                           | 28              |                |                |                |           |                                                                                     |
|             | M       | 30                              | 20              | 6-7            | 6-7            |                |           |                                                                                     |
|             | F       | 12 45                           |                 |                |                |                |           |                                                                                     |
| 1/viii      | iP      | 10 43 28                        |                 |                |                |                | 1400 Klm. |                                                                                     |
|             | S       | 45,9                            |                 |                |                |                |           |                                                                                     |
|             | F       | 11 15                           |                 |                |                |                |           | S tombe dans l'interruption de la minute.                                           |
| 5/viii      | eP      | 1 43,6                          |                 |                |                |                | 8800 Klm. |                                                                                     |
|             | eS      | 53,6                            |                 |                |                |                |           |                                                                                     |
|             | L       | 2 5                             |                 |                |                |                |           |                                                                                     |
|             | M       | 16                              | 18              | 10             |                |                |           |                                                                                     |
|             | F       | 3 0                             |                 |                |                |                |           |                                                                                     |
| 7/viii      | M       | 20 58                           | 11              | 5              |                |                |           |                                                                                     |
|             | F       | 21 15                           |                 |                |                |                |           |                                                                                     |
| 11/viii     | M       | 17 19                           | 14              | 5-6            | 5-6            |                |           |                                                                                     |
|             | F       | 45                              |                 |                |                |                |           |                                                                                     |
|             |         |                                 |                 |                |                |                |           | Du 16 au 21 août, enregistrement suspendu. Montage du pendule vertical de Wiechert. |

ANNALES DE L'OBSERVATOIRE ROYAL DE BELGIQUE.

189

| DATES.      | PHASES.         | HEURES.                                        | T               | AMPLITUDES. |       |       | $\Delta$   | REMARQUES.                                            |
|-------------|-----------------|------------------------------------------------|-----------------|-------------|-------|-------|------------|-------------------------------------------------------|
|             |                 |                                                |                 | $A_N$       | $A_E$ | $A_Z$ |            |                                                       |
| <b>1910</b> |                 |                                                |                 | $\mu$       | $\mu$ | $\mu$ |            |                                                       |
| 21/viii     | eP              | 5 <sup>h</sup> 57 <sup>m</sup> 44 <sup>s</sup> |                 |             |       |       | 8100 Klm.? |                                                       |
|             | iP              | 14                                             |                 |             |       |       |            |                                                       |
|             | PR <sub>1</sub> | 6 0,6                                          |                 |             |       |       |            | PR <sub>1</sub> tombe dans l'interruption de l'heure. |
|             | i(S)            | 6 36                                           |                 |             |       |       |            |                                                       |
|             | i <sub>1</sub>  | 9 58                                           |                 |             |       |       |            |                                                       |
|             | i <sub>2</sub>  | 19 58                                          | 16 <sup>s</sup> |             |       |       |            | i(S), i <sub>1</sub> et i <sub>2</sub> d'après N.S.   |
|             | eL              | 24                                             |                 |             |       |       |            |                                                       |
|             | M               | 46                                             | 22              | 8-10        |       |       |            |                                                       |
|             | F               | 7 45                                           |                 |             |       |       |            |                                                       |
|             | eP              | 16 16,4                                        |                 |             |       |       | 2500 Klm.  |                                                       |
|             | eS              | 20,5                                           |                 |             |       |       |            |                                                       |
|             | M               | 27                                             | 16              |             | 10-15 |       |            |                                                       |
|             | F               | 45                                             |                 |             |       |       |            |                                                       |
| 31/viii     | e               | 19 4                                           |                 |             |       |       |            |                                                       |
|             | F               | 15                                             |                 |             |       |       |            |                                                       |
| 1/ix        | eP              | 0 57,8                                         |                 |             |       |       |            |                                                       |
|             | e               | 1 8                                            |                 |             |       |       |            |                                                       |
|             | eL              | 30                                             |                 |             |       |       |            |                                                       |
|             | M               | 33                                             | 23              | 60-70       | 30-40 |       |            |                                                       |
|             | M               | 42                                             | 14              | 20          | 20    |       |            |                                                       |
|             | F               | 2 15                                           |                 |             |       |       |            |                                                       |
|             | e               | 14 44,3                                        |                 |             |       |       |            |                                                       |
|             | eL              | 15 6                                           |                 |             |       |       |            |                                                       |
|             | M               | 10                                             | 18              | 20-25       | 8-9   |       |            |                                                       |
|             | M               | 18                                             | 16              | 20-25       | 20-25 |       |            |                                                       |
|             | F               | 45                                             |                 |             |       |       |            |                                                       |
| 6/ix        | e <sub>1</sub>  | 20 20,9                                        |                 |             |       |       |            |                                                       |
|             | e <sub>2</sub>  | 27,6                                           |                 |             |       |       |            |                                                       |
|             | eL              | 51                                             |                 |             |       |       |            |                                                       |
|             | M               | 21 3-4                                         | 18-20           | 15-20       | 25-30 |       |            |                                                       |
|             | F               | 45                                             |                 |             |       |       |            |                                                       |
| 7/ix        | P               | 7 30 16                                        |                 |             |       |       |            |                                                       |
|             | i               | 33 35                                          |                 |             |       |       |            |                                                       |
|             | e(L)            | 8 15                                           |                 |             |       |       |            |                                                       |

| DATES.       | PHASES.         | HEURES.                        | T               | AMPLITUDES. |         |         | $\Delta$  | REMARQUES.                                                                                                                             |
|--------------|-----------------|--------------------------------|-----------------|-------------|---------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------|
|              |                 |                                |                 | $A_N$       | $A_E$   | $A_Z$   |           |                                                                                                                                        |
| 1910<br>7/ix | M               | 8 <sup>h</sup> 23 <sup>m</sup> | 22 <sup>s</sup> | $\mu$       | $\mu$   | $\mu$   |           |                                                                                                                                        |
|              | M               | 26                             | 24              | 25 - 30     | 15 - 20 |         |           |                                                                                                                                        |
|              | F               | 9 30                           |                 |             |         |         |           |                                                                                                                                        |
|              | e               | 10 51,0                        |                 |             |         |         |           |                                                                                                                                        |
|              | F               | 11 45                          |                 |             |         |         |           | Quelques faibles ondes.                                                                                                                |
|              | eP              | 1 25 14 <sup>s</sup>           |                 |             |         |         | 8800 Klm. | eP, d'après Z.                                                                                                                         |
|              | iP              | 23                             |                 |             |         |         |           |                                                                                                                                        |
|              | eS              | 35,2                           |                 |             |         |         |           |                                                                                                                                        |
|              | eL              | 46                             |                 |             |         |         |           |                                                                                                                                        |
|              | M               | 52                             | 36              |             |         |         |           |                                                                                                                                        |
| 9/ix         | M               | 2 0                            | 22              | 30 - 35     | 35 - 40 | 60 - 65 |           |                                                                                                                                        |
|              | M               | 4                              | 22              | 25          |         |         |           |                                                                                                                                        |
|              | M               | 6                              | 20              | 25          |         |         |           |                                                                                                                                        |
|              | F               | 3 15                           |                 |             |         |         |           |                                                                                                                                        |
|              | e(L)            | 10 35                          |                 |             |         |         |           |                                                                                                                                        |
|              | M               | 38 - 41                        | 18              | 2 - 3       | 3 - 4   |         |           |                                                                                                                                        |
|              | F               | 45                             |                 |             |         |         |           |                                                                                                                                        |
|              | ?               | 12                             |                 |             |         |         |           | De 12 <sup>h</sup> 45 <sup>m</sup> à 14 <sup>h</sup> 30 <sup>m</sup> , traces d'ondes sismiques. Temps non enregistré sur les courbes. |
|              | eP              | 23 21,5                        |                 |             |         |         |           | eP, d'après Z.                                                                                                                         |
|              | PR <sub>1</sub> | 25,4                           |                 |             |         |         |           |                                                                                                                                        |
| 16/ix        | eS              | 33                             |                 |             |         |         |           |                                                                                                                                        |
|              | eL              | 58                             |                 |             |         |         |           |                                                                                                                                        |
| 17/ix        | M               | 0 6 - 8                        | 13              | 2 - 3       | 2 - 3   | 5 - 6   |           |                                                                                                                                        |
|              | F               | 45                             |                 |             |         |         |           |                                                                                                                                        |
| 21/ix        | M               | 17 4 - 7                       | 14              |             |         |         |           |                                                                                                                                        |
|              | F               | 15                             |                 |             |         |         |           |                                                                                                                                        |
| 24/ix        | P               | 3 45 2                         |                 |             |         |         | 9100 Klm. | P, d'après Z.                                                                                                                          |
|              | eS              | 55 20                          |                 |             |         |         |           |                                                                                                                                        |
|              | eL              | 4 11                           | 32              |             |         |         |           |                                                                                                                                        |
|              | M               | 23                             | 18              | 5 - 6       | 8 - 9   |         |           |                                                                                                                                        |
|              | F               | 5 0                            |                 |             |         |         |           |                                                                                                                                        |

ANNALES DE L'OBSERVATOIRE ROYAL DE BELGIQUE.

191

| DATES.      | PHASES.         | HEURES.                         | T               | AMPLITUDES. |       |       | $\Delta$  | REMARQUES.                                                                                                                   |
|-------------|-----------------|---------------------------------|-----------------|-------------|-------|-------|-----------|------------------------------------------------------------------------------------------------------------------------------|
|             |                 |                                 |                 | $A_N$       | $A_E$ | $A_S$ |           |                                                                                                                              |
| <b>1910</b> |                 |                                 |                 | $\mu$       | $\mu$ | $\mu$ |           |                                                                                                                              |
| 24/IX       | eL              | 16 <sup>h</sup> 12 <sup>m</sup> | 17 <sup>o</sup> |             | 4-5   |       | 9400 Klm. |                                                                                                                              |
|             | M               | 17                              |                 |             |       |       |           |                                                                                                                              |
|             | F               | 45                              |                 |             |       |       |           |                                                                                                                              |
|             | eL              | 19 20                           | 19              |             |       |       |           |                                                                                                                              |
|             | F               | 45                              |                 |             |       |       |           |                                                                                                                              |
|             |                 |                                 |                 |             |       |       |           |                                                                                                                              |
| 4/X         | eP              | 23 13,4                         |                 |             |       |       |           |                                                                                                                              |
|             | iS              | 23 54 <sup>s</sup>              |                 |             |       |       |           |                                                                                                                              |
|             | i               | 24 55                           |                 |             |       |       |           |                                                                                                                              |
|             | eL              | 46                              |                 |             |       |       |           |                                                                                                                              |
|             | M               | 54                              |                 |             |       |       |           |                                                                                                                              |
|             | F               | 0 30                            |                 |             |       |       |           |                                                                                                                              |
| 5/X         |                 |                                 |                 |             |       |       |           |                                                                                                                              |
| 26/X        | e               | 15 47 34                        | 8               |             |       |       |           |                                                                                                                              |
|             | eL              | 50                              |                 |             |       |       |           |                                                                                                                              |
|             | M               | 51-52                           |                 | 2-3         | 2-3   |       |           |                                                                                                                              |
|             | F               | 16 15                           |                 |             |       |       |           |                                                                                                                              |
| 6/XI        | eL              | 21                              | 24              |             |       |       | 20-30     | Entre 21 <sup>h</sup> et 22 <sup>h</sup> , trace d'un tremblement de terre. Le temps n'a pas été enregistré sur les courbes. |
|             | M               |                                 | 15              | 8-10        |       |       |           |                                                                                                                              |
| 9/XI        | iP              | 6 21 32                         | 24              |             |       |       |           | iP et PR <sub>1</sub> , d'après Z.<br>i, eS, e <sub>1</sub> et e <sub>2</sub> , d'après N-S.                                 |
|             | PR <sub>1</sub> | 24,4                            |                 |             |       |       |           |                                                                                                                              |
|             | i               | 25 4                            |                 |             |       |       |           |                                                                                                                              |
|             | e <sub>1</sub>  | 29,6                            |                 |             |       |       |           |                                                                                                                              |
|             | e(S)            | 32,2                            |                 |             |       |       |           |                                                                                                                              |
|             | e <sub>2</sub>  | 34,5                            |                 |             |       |       |           |                                                                                                                              |
|             | eL              | 49                              |                 |             |       |       |           |                                                                                                                              |
|             | M <sub>1</sub>  | 7 22 35                         |                 | +60         |       |       |           |                                                                                                                              |
|             | M <sub>2</sub>  | 47 58                           |                 |             | -40   |       |           |                                                                                                                              |
|             | M <sub>3</sub>  | 55 27                           |                 | -70         |       |       |           |                                                                                                                              |
|             | M <sub>4</sub>  | 59 32                           |                 | -40         |       |       |           |                                                                                                                              |
|             | M <sub>5</sub>  | 8 2 41                          |                 |             | -50   |       |           |                                                                                                                              |
|             | M <sub>6</sub>  | 4 13                            | 18              | +50         |       |       |           | Probablement superposition de deux tremblements de terre; mais les phases du second ne sont pas reconnaissables.             |
|             | F               | 9 0                             |                 |             |       |       |           |                                                                                                                              |
|             |                 |                                 |                 |             |       |       |           |                                                                                                                              |
| 10/XI       | eP              | 12 39,3                         |                 |             |       |       |           |                                                                                                                              |
|             | eL              | 13 30                           |                 |             |       |       |           |                                                                                                                              |

| DATES.      | PHASES.                                                            | HEURES.                                                           | T               | AMPLITUDES.    |       |       | $\Delta$   | REMARQUES                          |
|-------------|--------------------------------------------------------------------|-------------------------------------------------------------------|-----------------|----------------|-------|-------|------------|------------------------------------|
|             |                                                                    |                                                                   |                 | $A_N$          | $A_E$ | $A_Z$ |            |                                    |
| <b>1910</b> |                                                                    |                                                                   |                 |                |       |       |            |                                    |
| 10/XI       | M<br>F                                                             | 13 <sup>h</sup> 39-41 <sup>m</sup><br>14 15                       | 22 <sup>s</sup> | 10-12          |       |       |            |                                    |
| 14/XI       | e(L)<br>M<br>M<br>F                                                | 8 19<br>23<br>30<br>9                                             | 20<br>15        | 40-50<br>25-30 | 30-40 |       |            | Troublé par le vent.               |
| 15/XI       | iP<br>iS<br>eL<br>M<br>M<br>F                                      | 14 40 (20 <sup>s</sup> )<br>49 54<br>15 10<br>17<br>21-24<br>16 0 | 40<br>24<br>18  | 40-45<br>25-30 | 20-25 |       | 8300 Klm.  | iP, d'après Z.<br>iS, d'après N-S. |
| 26/XI       | eP<br>e<br>i <sub>1</sub><br>i <sub>2</sub><br>e(L)<br>M<br>F      | 5 0 47<br>3,7<br>4 27<br>17 37<br>45<br>6 1 32<br>8 30            | 22              | +60            |       |       |            | i <sub>2</sub> , d'après N-S.      |
| 29/XI       | P<br>eL<br>M <sub>1</sub><br>M <sub>2</sub><br>M <sub>3</sub><br>F | 2 39 28<br>3 12<br>17<br>23<br>25<br>45                           | 17<br>12<br>14  | 10<br>10<br>5  | 6     | 25    |            | P, d'après Z.                      |
| 1/XII       | iP<br>e(S)<br>eL<br>M<br>M<br>F                                    | 16 1 42<br>9,6<br>(38)<br>46-47<br>50-51<br>17 30                 | 23<br>21        | 10             | 10    |       | 6300 Klm.? | iP, d'après Z.<br>eS, d'après N-S. |
| 4/XII       | eP<br>i                                                            | 11 23<br>31,3                                                     |                 |                |       |       |            |                                    |

ANNALES DE L'OBSERVATOIRE ROYAL DE BELGIQUE.

193

| DATES.      | PHASES.         | HEURES.                            | T               | AMPLITUDES. |       |       | $\Delta$  | REMARQUES.                                                               |
|-------------|-----------------|------------------------------------|-----------------|-------------|-------|-------|-----------|--------------------------------------------------------------------------|
|             |                 |                                    |                 | $A_N$       | $A_E$ | $A_Z$ |           |                                                                          |
| <b>1910</b> |                 |                                    |                 | $\mu$       | $\mu$ | $\mu$ |           |                                                                          |
| 4/XII       | M               | 12 <sup>h</sup> 43-47 <sup>m</sup> | 20 <sup>s</sup> | 4-5         |       |       |           |                                                                          |
|             | M               | 51-54                              | 17              |             | 4-5   |       |           |                                                                          |
|             | F               | 13 15                              |                 |             |       |       |           |                                                                          |
| 5/XII       | e(L)            | 17 17                              |                 |             |       |       |           |                                                                          |
|             | M               | 19                                 | 14              |             | 1-2   |       |           |                                                                          |
|             | F               | 45                                 |                 |             |       |       |           |                                                                          |
| 10/XII      | iP              | 9 46 3 <sup>s</sup>                |                 |             |       |       |           | iP et i, d'après Z.                                                      |
|             | i               | 48 41                              |                 |             |       |       |           |                                                                          |
|             | eL              | 10 25                              |                 |             |       |       |           |                                                                          |
|             | M               | 38                                 | 19              |             | 50    |       |           | Troublé par un visiteur et aussi par de forts mouvements microsismiques. |
|             | M               | 42                                 | 20              | 30-40       |       |       |           |                                                                          |
|             | M               | 51                                 | 18              | 25-30       |       |       |           |                                                                          |
|             | F               | 11 45                              |                 |             |       |       |           |                                                                          |
| 13/XII      | iP              | 11 47 42                           |                 |             |       |       | 6900 Klm. | P, d'après Z.                                                            |
|             | PR <sub>1</sub> | 50 1                               |                 |             |       |       |           | S, d'après N-S.                                                          |
|             | S               | 56,1                               |                 |             |       |       |           |                                                                          |
|             | eL              | 12 6                               |                 |             |       |       |           |                                                                          |
|             | M <sub>1</sub>  | 9 37                               | 23              |             | +140  |       |           | Troublé par des mouvements microsismiques.                               |
|             | M <sub>2</sub>  | 14 1                               | 19              |             | -140  |       |           |                                                                          |
|             | M <sub>3</sub>  | 17 5                               | 15              |             | +120  |       |           |                                                                          |
|             | M <sub>4</sub>  | 19 1                               | 17              | +90         |       |       |           |                                                                          |
|             | M <sub>5</sub>  | 19 20                              | 13              |             |       | +100  |           |                                                                          |
|             | M <sub>6</sub>  | 21 27                              | 14              | +80         |       |       |           |                                                                          |
|             | M <sub>7</sub>  | 23 27                              | 14              | +60         |       |       |           |                                                                          |
|             | M'              | 14 18-20                           |                 |             |       |       |           |                                                                          |
|             | M'              | 27-31                              | 17              |             | 6-8   |       |           |                                                                          |
|             | F               | 45                                 |                 |             |       |       |           |                                                                          |
| 14/XII      | eP              | 21 4 55                            |                 |             |       |       |           | D'après Z.                                                               |
|             | iP              | 58                                 |                 |             |       |       |           |                                                                          |
|             | i               | 7 11                               |                 |             |       |       |           |                                                                          |
| 16/XII      | e               | 15 3,6                             |                 |             |       |       |           |                                                                          |
|             | eS              | 11,3                               |                 |             |       |       |           |                                                                          |
|             | eL              | 36                                 |                 |             |       |       |           |                                                                          |
|             | M <sub>1</sub>  | 41 55                              | 19              | -70         |       |       |           |                                                                          |

| DATES.      | PHASES.        | HEURES.                                         | T               | AMPLITUDES. |       |       | $\Delta$ | REMARQUES.              |
|-------------|----------------|-------------------------------------------------|-----------------|-------------|-------|-------|----------|-------------------------|
|             |                |                                                 |                 | $A_N$       | $A_E$ | $A_Z$ |          |                         |
| <b>1910</b> |                |                                                 |                 | $\mu$       | $\mu$ | $\mu$ |          |                         |
| 16 XII      | M <sub>2</sub> | 15 <sup>h</sup> 44 <sup>m</sup> 35 <sup>s</sup> | 22 <sup>s</sup> | -130        |       |       |          |                         |
|             | M <sub>3</sub> | 47 43                                           | 20              | -120        |       |       |          |                         |
|             | M <sub>4</sub> | 48 27                                           | 19              | -110        |       |       |          |                         |
|             | M <sub>5</sub> | 50 43                                           | 20              |             | -120  |       |          |                         |
|             | M <sub>6</sub> | 53 0                                            | 16              | +100        |       |       |          |                         |
|             | M <sub>7</sub> | 55 5                                            | 17              | -130        |       |       |          |                         |
|             | M <sub>8</sub> | 56 26                                           | 15              |             | +70   |       |          |                         |
|             | F              | 17 30                                           |                 |             |       |       |          |                         |
|             | eL             | 19 47                                           |                 |             |       |       |          |                         |
|             | M              | 52                                              | 16              | 10          |       |       |          |                         |
| 18/XII      | M              | 57                                              | 18              |             | 10-15 |       |          |                         |
|             | F              | 20 30                                           |                 |             |       |       |          |                         |
|             | eL             | 3 40                                            |                 |             |       |       |          |                         |
|             | M              | 50-51                                           | 19              | 5-6         | 6-7   |       |          |                         |
|             | F              | 4 15                                            |                 |             |       |       |          |                         |
|             | e(L)           | 5 50                                            |                 |             |       |       |          |                         |
|             | M              | 53                                              | 12              |             | 1-2   |       |          |                         |
|             | F              | 6 0                                             |                 |             |       |       |          |                         |
|             | eP             | 0 39 24                                         |                 |             |       |       |          | eP, d'après Z.          |
|             | eL             | 1 7                                             |                 |             |       |       |          |                         |
| 23/XII      | M              | 9-10                                            | 16              | 8-10        | 7-8   |       |          |                         |
|             | F              | 45                                              |                 |             |       |       |          |                         |
|             | eL             | 19 52                                           |                 |             |       |       |          |                         |
|             | F              | 20 15                                           |                 |             |       |       |          |                         |
| 27/XII      | eL             | 14 2                                            |                 |             |       |       |          |                         |
|             | M              | 9                                               | 16              | 6-7         |       |       |          |                         |
|             | M              | 10                                              | 21              |             | 8-10  |       |          |                         |
|             | F              | 30                                              |                 |             |       |       |          |                         |
| 29/XII      | e(L)           | 14 2                                            |                 |             |       |       |          |                         |
|             | M              | 9                                               | 16              | 6-7         |       |       |          |                         |
|             | M              | 10                                              | 21              |             | 8-10  |       |          |                         |
|             | F              | 30                                              |                 |             |       |       |          |                         |
| 30/XII      | M              | 1 40-50                                         |                 |             |       |       |          | Quelques faibles ondes. |