

COMPUTATION OF PERIOD—HALF-SECOND PENDULUMS

Series A

Observer: M. Selga  
Reduction by M. Selga.

Station: Manila Observatory

Pendulum: B5

Knife-Edge: B11

Date: August 14/2, 1921

Position: Direct

|                        | Swing: 1             |       |       | Swing: 2             |       |       |
|------------------------|----------------------|-------|-------|----------------------|-------|-------|
|                        | Chronometer No. 1589 |       |       | Chronometer No. 3462 |       |       |
| 1 Coincidence,         | 205 sec.             |       |       | 202 sec.             |       |       |
| Coincidence Interval,  | H. 12                | M. 8  | S. 9  | H. 12                | M. 15 | S. 44 |
| Coincidence Interval,  | 43689 sec.           |       |       | 44144 sec.           |       |       |
| No. Coincidences,      | 212                  |       |       | 218                  |       |       |
| 10 Coincidences,       | 2060.8 sec.          |       |       | 2024.9 sec.          |       |       |
|                        |                      |       |       |                      |       |       |
| Coincidence Interval,  | H. 12                | M. 7  | S. 15 | H. 12                | M. 8  | S. 00 |
| Coincidence Interval,  | 43635 sec.           |       |       | 43680 sec.           |       |       |
| No. coincidences,      | 212                  |       |       | 216                  |       |       |
| 10 Coincidences,       | 2058.2 sec.          |       |       | 2022.2 sec.          |       |       |
| Mean Up and Down,      | 2059.5 sec.          |       |       | 2023.6 sec.          |       |       |
| Uncor. Period,         | <sup>s</sup> 0.50    | 12169 |       | <sup>s</sup> 0.50    | 12385 |       |
| Corr. for Arc,         | -23                  |       |       | -23                  |       |       |
| Corr. for Pressure,    | +14                  |       |       | +14                  |       |       |
| Corr. for Temperature, | -552                 |       |       | -552                 |       |       |
|                        | <sup>s</sup> 0.50    | 11608 |       | <sup>s</sup> 0.50    | 11824 |       |
| Corr. for Rate,        | +34                  |       |       | +51                  |       |       |
| Corr. for Flexure,     | -38                  |       |       | -38                  |       |       |
|                        |                      |       |       |                      |       |       |
| Period,                | <sup>s</sup> 0.50    | 11604 |       | <sup>s</sup> 0.50    | 11837 |       |

|                        | Swing: 2             |       |       |
|------------------------|----------------------|-------|-------|
|                        | Chronometer No. 1589 |       |       |
| 1 Coincidence,         | 203 sec.             |       |       |
| Coincidence Interval,  | H. 12                | M. 6  | S. 49 |
| Coincidence Interval,  | 43609 sec.           |       |       |
| No. Coincidences,      | 214                  |       |       |
| 10 Coincidences,       | 2037.8 sec.          |       |       |
|                        |                      |       |       |
| Coincidence Interval,  | H. 12                | M. 6  | S. 19 |
| Coincidence Interval,  | 43579 sec.           |       |       |
| No. coincidences,      | 214                  |       |       |
| 10 Coincidences,       | 2036.4 sec.          |       |       |
| Mean Up and Down,      | 2037.1 sec.          |       |       |
| Uncor. Period,         | <sup>s</sup> 0.50    | 12303 |       |
| Corr. for Arc,         | -49                  |       |       |
| Corr. for Pressure,    | +22                  |       |       |
| Corr. for Temperature, | -556                 |       |       |
|                        | <sup>s</sup> 0.50    | 11720 |       |
| Corr. for Rate,        | +38                  |       |       |
| Corr. for Flexure,     | -38                  |       |       |
|                        |                      |       |       |
| Period,                | <sup>s</sup> 0.50    | 11720 |       |

|      | PRESSURE. |      | TEMPERATURE.          |                 |      | PRESSURE. |      | TEMPERATURE.          |                 |
|------|-----------|------|-----------------------|-----------------|------|-----------|------|-----------------------|-----------------|
|      | mm.       | mm.  | °C.                   | Means           |      | mm.       | mm.  | °C.                   | Means           |
| Arc, | 8.8       | 46.0 | 28.2                  | 28.3            | Arc, | 12.7      | 37.5 | 28.4                  | 28.4            |
|      | 2.2       | 56.1 | 28.4                  |                 |      | 3.3       | 46.0 | 28.4                  |                 |
|      | Mean 51.0 |      |                       | Mean total 28.3 |      | Mean 41.8 |      |                       | Mean total 28.4 |
|      |           |      | Therm. Corr. -0.1     |                 |      |           |      | Therm. Corr. -0.1     |                 |
|      |           |      | Corrected temp. 28.20 |                 |      |           |      | Corrected temp. 28.30 |                 |