

## PAGES FROM THE DIARY OF A PENDULUM CLOCK (file 8).

The clock was manufactured around 1770 AD by Napier & Dun in Glasgow, reconditioned around 1950 in London (England) and kept and serviced in Montreal until 2010. It is now in a climatized room in Magog, Quebec. Direct sunlight cannot reach it, and the bob of pig-iron of its pendulum swings exactly East-West, almost perpendicular to the field-lines of the magnetic field of the Earth. The shaft of the pendulum is a steel-cable in a sheathing of tin. In 2016, the clock was adjusted to a daily drift of + 5 seconds. The daily variation rarely exceeded +/- 2 seconds, but occasionally, much bigger anomalies occurred, either on a single day or in the course of several days(fig.1).

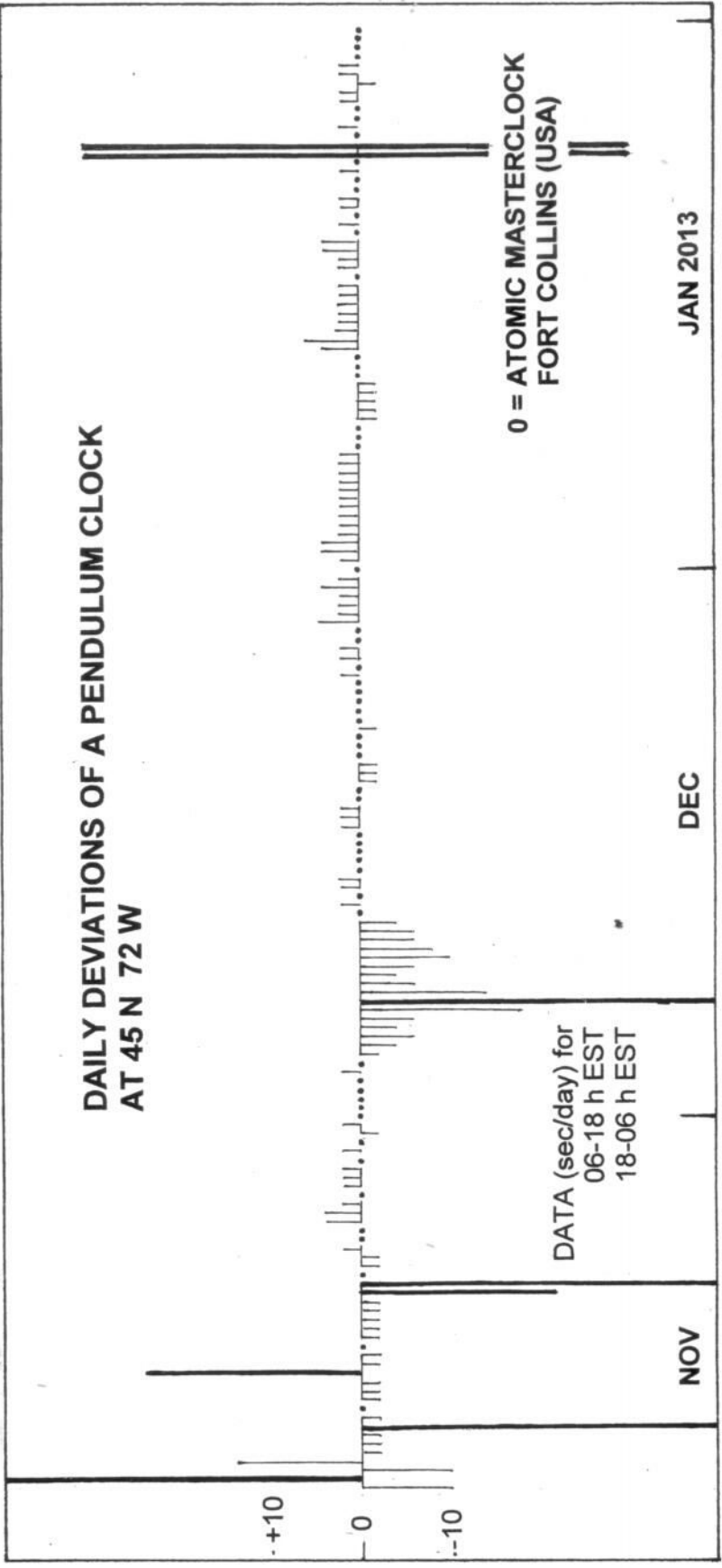
I knew that dense solar wind usually changes the interplanetary magnetic field in the vicinity of the Earth. If it did, the pendulum clock was slowed down one day later and accelerated again two days later; but the effect is not guaranteed.

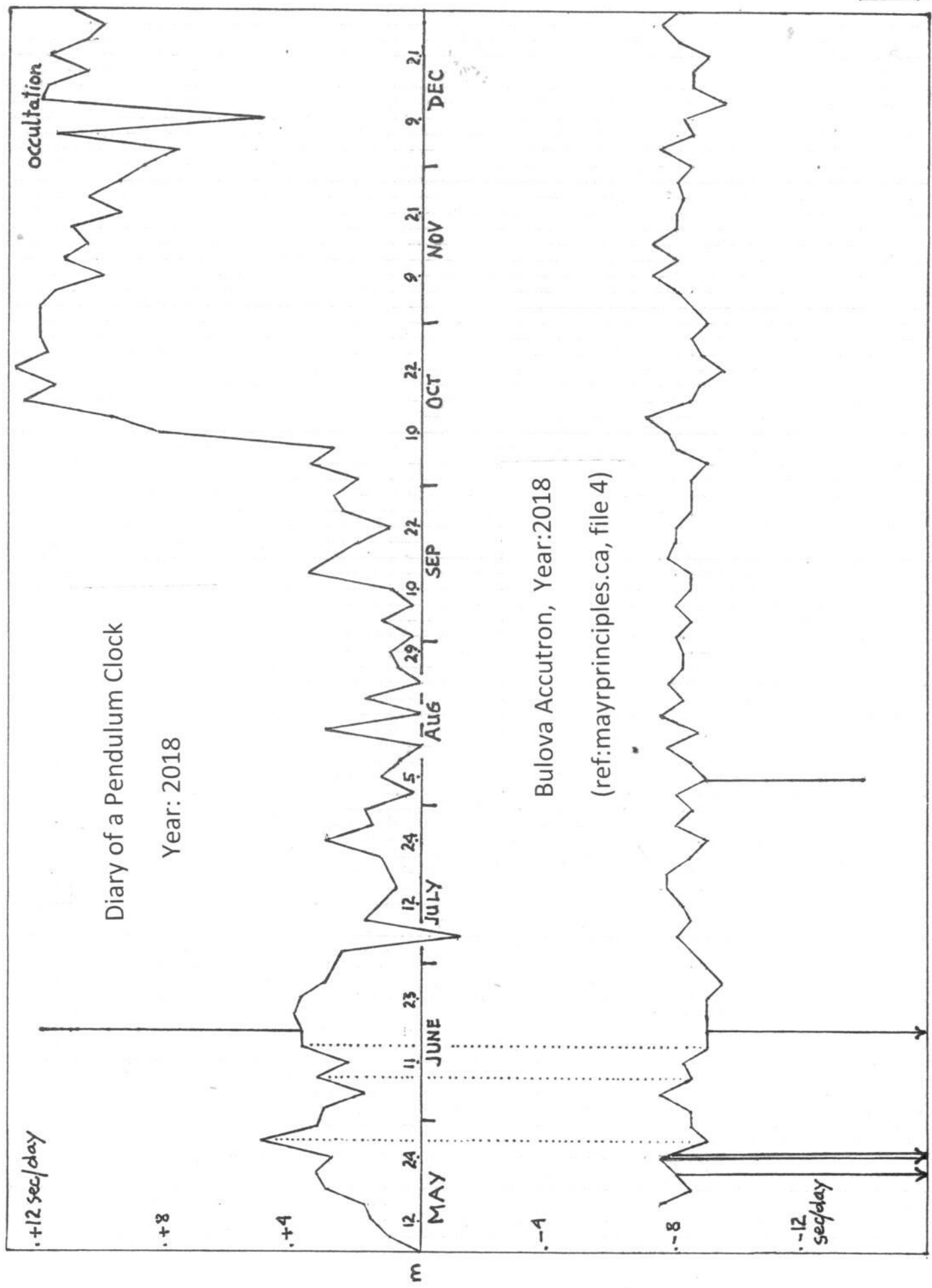
The anomalies observed during Solar Minimum 24 were of a different kind. In October, 2018, the clock was accelerated to a daily drift of 12 seconds above the adjustment of 2016 and ran too fast until February 4, 2019, when the daily drift dropped to its average for 2016. Acceleration followed but came again to a sudden end on March 8, 2019. The clock slowed down to 4-5 seconds above the adjustment of 2016, and lost another 5 seconds on April 4, 2019. On that day, Jupiter as seen from Earth had apparently been in the way of radiation emitted by the central part of our galaxy. The effect was equal to a sudden strengthening of the magnetic field of the Earth (figs. 2,3).

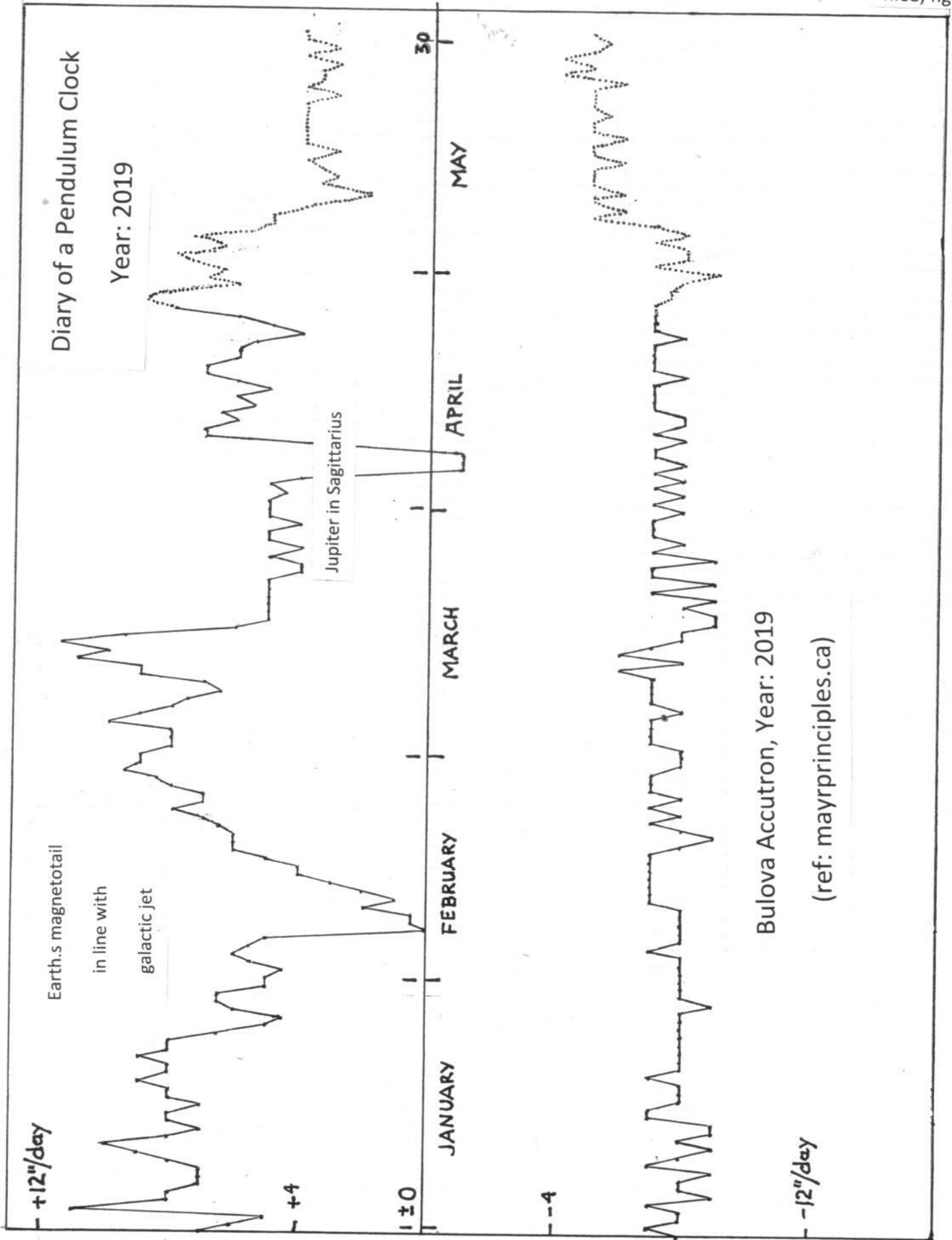
The graph for the months of April, May, June, July and August 2020 exhibits 4 days with outstanding changes in April and May, 4 days with smaller events in June and unsettled conditions in July and August (fig.4). Correlation of the amplitude of these spikes with data published by [spaceweather.com](http://spaceweather.com) is not very convincing, but the onset of a significant event on May 19, 2020, reminds us that a bob of pig-iron in a pendulum swinging East-West registers minute differences in spaceweather at minimal costs - if Time is measured by a quartz clock which is linked to one of the atomic master-clocks of the world. Our forefathers could not do it. ( q.e.d.)

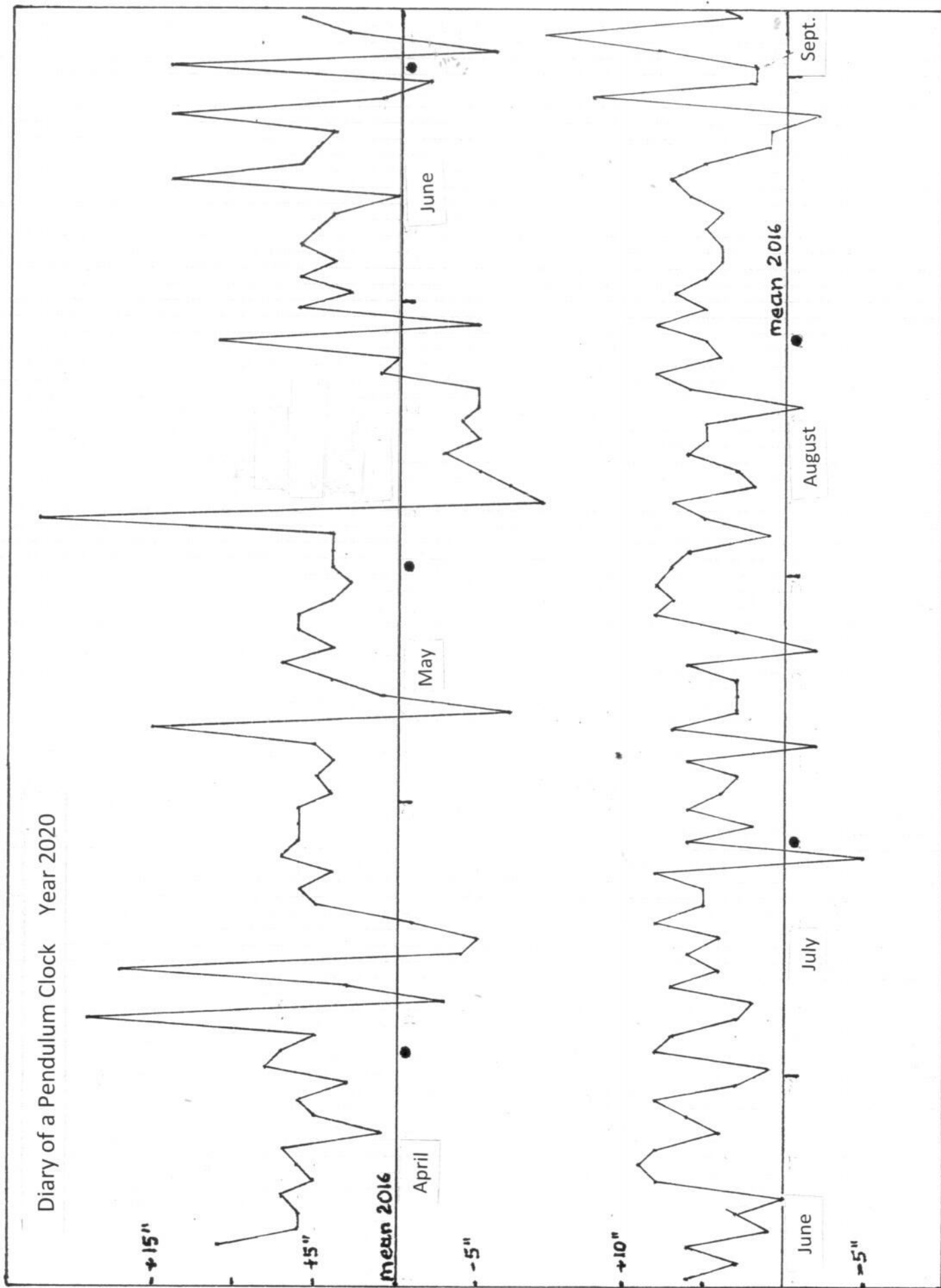
F.C.MAYR (2013)

DAILY DEVIATIONS OF A PENDULUM CLOCK  
AT 45 N 72 W



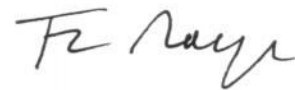






## CONCLUDING REMARKS (file 9)

The equation  $K^3 = \frac{2k \cdot \tan \delta}{\mu_0 \epsilon_0 e^2 \pi}$  does not need "God" or "Einstein" to be valid: it is validated by the sequence of boundaries between geological epochs on Earth. In the graph of file 6 these boundaries form straight lines, seven spokes in the logarithmic spiral of galactic orbits of the Sun, all of them pointing to the centre of our galaxy. The graph might tell us more than we are ready to believe; but if I am right it will gradually be accepted, and the same will be true for the cosmic timetable and its applications. Some people will deny the validity of the equation for K, but Nature will force us to accept her laws.



Magog, September 13, 2020.

(F.C. Mayr)

P.S. I have used the numerical value of  $\alpha^{-1}$  in CODATA Bulletin, November 1986, (Cohen and Taylor, 1986). Its theoretical value was determined by B.Heim (see: "Elementarstrukturen der Materie, Bd.1, 3.Auflage, Innsbruck(Resch) 1996). The concept was one of the many achievements of the late Professor Sommerfeld (see: Wikipedia, Arnold Sommerfeld, update Sept.7, 2020).

Since the first event of the Future considered "compelling evidence" for the above-mentioned conclusions is more than 400 years away I encourage the readers (users) of [www.mayrcosmictimetable.com](http://www.mayrcosmictimetable.com) to print it (at least in part) on durable paper and hand it down from generation to generation until the knowledge will be needed .

PPS

On October 5, 2020, 50 years of extraordinary efforts to decipher the fine structure of Sagittarius A came to a preliminary end. The public is now entitled to say that 'there is compelling evidence of a supermassive **black hole** at the centre of our galaxy'. Wikipedia informs us, that the star C2 in Sagittarius A is only 120 AU away from the center of the black hole and orbiting with a speed of 7650 km/sec. The respective measurements were either carried out or sponsored by Prof. Reinhard Genzel, Director of the Max Planck Institute for Astrophysics in Munchen-Garching. A quick calculation shows that the orbital period of C2 is the same as H8082 of W2 of the Mayr model of galactic magnetic waves. A printed copy (2014) of [www.mayrheliophysics](http://www.mayrheliophysics.com) ( with the computer program for the model and precise values for tau and phi ) is on the shelves of a National Library, less than 500 km away from the office of Prof. Genzel, but , being an astrophysicist, he is not supposed to know who I am and what I did; Congratulations!



Magog,(Quebec), November 30, 2020.