

When I setup my concrete Pavers on Nov 11, 2016, the alignment and level looked like this:



When I finished my last reading on Nov 12, 2017, the alignment looked like this:





You can see this movement of nearly $\frac{3}{4}$ " in my data. On the spreadsheets for Activity #2, Activity #3 and Activity #4 Tabs, the dates in Red show this movement starting about DOY 195 or mid-July 2017. The data calculated from my Analemma data has a larger and larger error showing up after this date until the last date of Nov 12, 2017.

When I took each reading, I knelt next to the concrete Pavers, on the right side of this picture. The $1\frac{1}{2}$ " river rock started to get compressed from each kneeling and expanded the rock, pushing the Pavers to the west (left of the yellow line) and thus skewing my data from that point on. I rechecked the celestial north alignment (the yellow line marks this direction) about Jan 1, 2017 but never did it again. I rechecked the level every other month.

When I do this Analemma exercise again, I would get just one concrete Paver to hold the feet marks for resetting my solar viewer on. I would not set the Paver in any form of gravel that would be inclined to move when I knelt next to it to record a solar location. I would use pieces of aluminum 90° angle metal and drive them into the ground at each corner of the Paver to help stabilize the concrete Paver from rotation. I would recheck the level and celestial north orientation EVERY month to ensure the solar viewer is always in the correct alignment.