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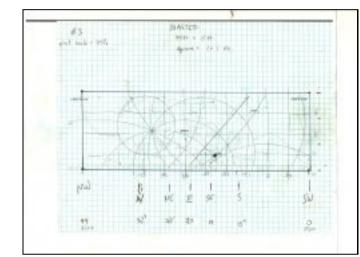
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Blog

Walk Across Time

Posted by admin on August 19, 2014



In celebration of 150 years since South Bend, IN, was incorporated, a crosswalk downtown depicts the night sky on the city's <u>first midnight in 1865</u>. On Friday, August 15, 2014, members of the <u>Michiana Astronomical Society Inc.</u> (MAS), who were joined by people walking down the street, began chalking the celestial pattern onto the crosswalk, over which they added road paint.

The team began by chalking out a two-foot by two-foot grid. More MAS members then transferred features and lines from the <u>star chart</u>--which had been printed to a scale of one foot of sidewalk per square on the graph paper--onto the ground. Occasionally we had to erase our chalk lines with large paint brushes, but the overall image is fairly accurate.



To get oriented to the <u>master star chart</u>, stand on west side of the crosswalk in the middle of the street and face east. The far left edge of the crosswalk nearest First Source Bank is northwest, and the far right edge of the crosswalk nearest the Chocolate Cafe is southwest. In between from left to right are N, NE, E, SE, and S.

The elongated chart has an altitude-azimuth projection. The blue lines denote hours of right ascension (the celestial equivalent to longitude) and degrees of declination (the celestial equivalent to latitude). The blue lines converging at the north celestial pole, the location of the north star Polaris, represent hours of right ascension. From the celestial equator (thick straight line), to the left are the curving 30 degrees north and the circular 60 degrees north of declination. Right of the celestial equator is 30 degrees south declination.

The ecliptic, the line along which the sun, moon, and planets appear, is drawn in dark green. Jupiter and Saturn are drawn where they were on April 22, 1865. Though enlarged to show rings and surface features, the planets look like bright stars in the night sky, only the planets do not twinkle like stars.

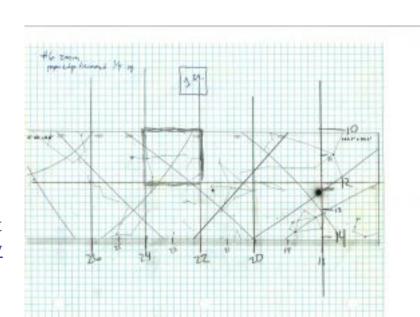
Constellation outlines are in yellow. Stars are in white. Eltanin, the bright star in Draco the Dragon, is labeled because it resides about 150 light years away. When South Bend was incorporated, the light from that star was just leaving. Traveling at 186,00 miles *per second*, those photos are just now striking our eyes.

Chuck Bueter chalked out coordinates and cardinal points, but that intended identification did not get painted in time for the opening during Art Beat on Saturday, August 15, 2014. Hopefully those labels will be added later to provide clarity for observers.

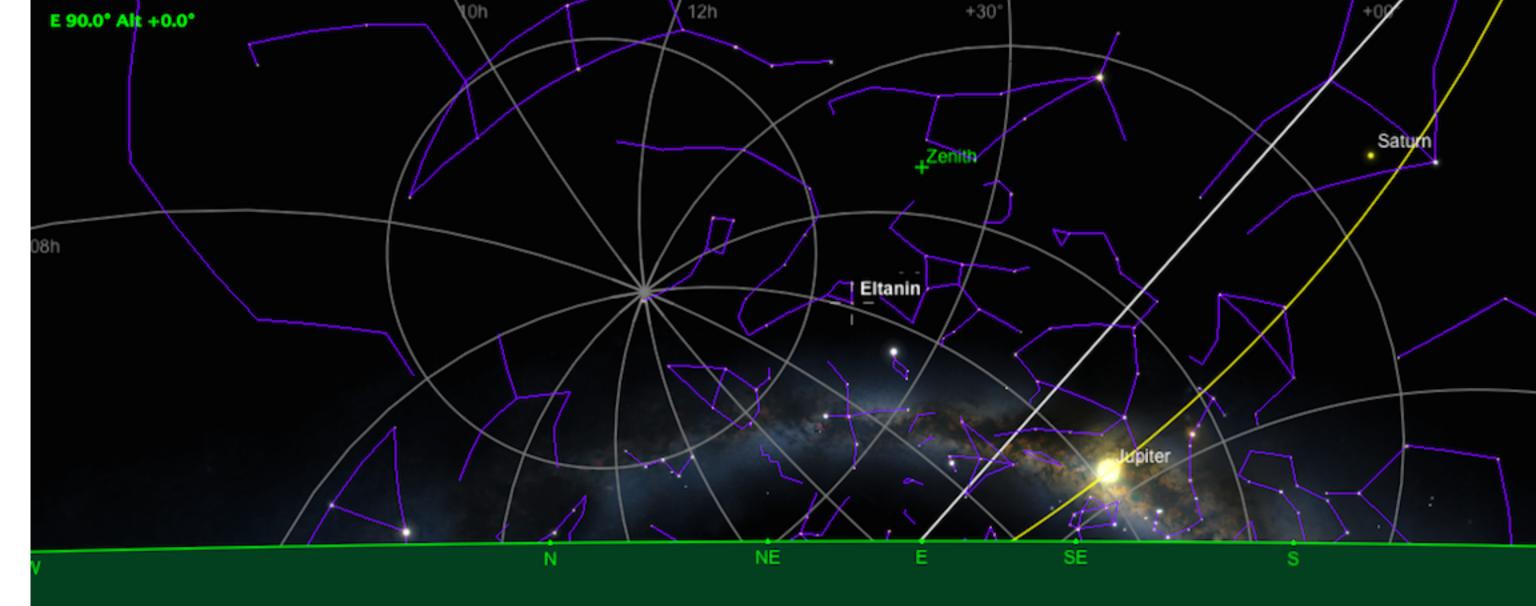
The region near the eastern horizon appears compressed due to the projection of the stars, whereas the star charts on the more extreme ends appear stretched out and more distorted. A <u>second chart zooms</u> into that crowded eastern segment to yield more detail.

Much thanks go to the amateur astronomers of Michiana Astronomical Society, Inc, who came out to support the effort. Plotting constellations in a distorted starfield is a challenge, to which the team rose. Among the MAS members participating were Chuck Bueter, Ruth Craft, Linda Marks, Steve Accuosti, and Eileen Murphy.

Others lending support were Sam, Betsy, Debbie, and Randy. Chris Stackowicz coordinated the crosswalk painting project with aid from the City of South Bend and others. June S-R Photography posted more images at <u>Paintin' the Bend: Day before Artbeat 2014</u>.



More images, star charts and text at First Midnight.



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