

Re: Ironic SAA

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- *From:* oriel36 <geraldkelleher@xxxxxxxxxx>
 - *Date:* Mon, 27 Aug 2007 03:46:15 -0700
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On Aug 27, 5:50 am, Margo Schuler <mschul...@xxxxxxxxxxxxxxxxxx> wrote:

alliso...@xxxxxxxxxx wrote:

We all know that the earth does not revolve around the Sun once every 365 days, and every 366 days every fourth year. The calendar in standard use assumes thusly because it is convenient and simple to do so for civil purposes.

Hi, there, and that's pretty much my reaction also: I have no complaint to direct to Julius Caesar, nor to Pope Gregory XIII, who in response to the known fact mentioned for example by Dante around 1300 that the Julian calendar was off by about "a hundredth of a day," followed his astronomical advisers in introducing the rule that only years divisible by 100 which were also divisible by 400 would be leap years (like 1600 and 2000).

What strikes me is that from either an observational or theoretical point of view, the precise conventions we use for timekeeping --- or RA and Dec or whatever --- are pretty provincial matters compared to the scale of the universe, or even of our own Milky.

I'd see RA and Dec and the mapping of the night sky into constellations as simply useful conventions for naming and finding things, much like speaking of "sunrise/sunset" or "moonrise/moonset" --- which don't necessarily imply a Ptolemaic or more generally geocentric model of our Solar System!

Here and elsewhere, professional and amateur astronomers who follow these conventions are indeed practicing astronomy, whether it's attempting to observe some star cluster or galaxy and discern some of its structure, or refining the Cepheid period-luminosity relationship, or studying supernova dynamics, or getting new information from millimeter wave surveys.

The excitement of this group is that we have both the excitement of first-hand visual observation, and the opportunity to learn more

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about the theoretical background and context, even if we don't have the equipment to do all of the relevant studies at different wavelengths ourselves.

Most appreciatively,

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This highly technical matter has its roots in the difference between the correct working principles of structural and timekeeping astronomers before Flamsteed and the astrologically based convenience which emerged in the late 17th century –

http://en.wikipedia.org/wiki/Right_ascension

No astronomer, not a single one in the pre-empiricist era would ever have thought of using a clock and external references to justify the Earth's axial and orbital motion no matter how convenient it was to track celestial phenomena via the calendar system.