



# The Prairie Astronomer

Volume 21, Number 11  
November 24, 1981

11-81

## OUR WANDERING, WOBBLING EARTH

The mid-Sahara had monsoons 9,000 years ago. In fact, there was a culture whose principal source of food was fishing--and there were plenty of lakes to do it in. Monsoon rains extended further inland then, whereas now, in Africa, they occur mostly near the western coasts. Why the change?

John Kutzbach, professor of meteorology at the University of Wisconsin in Madison, and director of that university's Center for Climatic Research, believes that the point of perihelion of the earth's orbit--the point of its closest approach to the sun--changes on an 18,000-year cycle. That would mean a rate of about one day's change every 60 years.

Presently, the earth approaches closest to the sun in January, and farthest in July. That means warmer winters and cooler summers. Nine thousand years ago, the cycle was reversed and perihelion was in July. According to results from calculations performed on a computer at the National Center for Atmospheric Research in Boulder, Colo., the solar radiation received by the earth 9,000 years ago was seven percent greater in summer, and seven percent lower in winter than it is today.

That extra heating warmed the land, which in turn warmed the air.

As the warmer air rose, moisture condensed, and cooler air from over the oceans moved in, bringing stronger monsoons inland to nourish the interiors of Africa and Asia.

Most of the investigations conducted in this area have been done at high latitudes, where ice forms--and they have led to a congruent theory which states that ice ages were also caused by changes in the earth's orbit, and the position of the planet's axis, and by slight changes in the ellipticity of the earth's shape, deformations caused by rotation. Kutzbach's calculations of solar radiation in the Sahara show that the same factors affect climate in the tropics.

### November Meeting

Newly-elected Program Chairman John Lortz is kicking off his term of office with an action-packed program for the November meeting. As usual, the place is Hyde Observatory, time 7:30 p.m., on Tuesday night, November 24.

First on the program is the Lincolnfest Committee's slide/tape presentation on what they hope to accomplish with the 1982 festivities. Since PAC has been an active

*(Continued on Page 4)*



# President's Message:

As I take the customary gavel as President for the first time this month, I would like to do two things right at the top. First, I would like to thank Ron Veys for 3 years of responsible leadership in which he brought a greater public awareness to the club, increased interest among members, and made the meetings more than just "meetings." His service as Vice President, I'm sure, will continue in the same way.

Next, I would like to introduce myself to you. Don't worry: this isn't an ego hype, but merely a means for you to know me, and hopefully in the future I will get to know each of you in the same way.

I'm 30 years old with a wife, Pat, and 3-year-old son, Andy (who knows just enough to hold the binoculars backwards.) For the last 10 years I was the Technical Advisor and Computer Systems Manager for Team Electronics in Lincoln. But, as of 2 months ago, I made a career change and am now a programmer/analyst for Harris Laboratories here. My hobbies are obviously astronomy, science fiction (1964 and older—everything else is too far out for me), and computers. I presently own a 4.5-inch reflector (we all make mistakes) and am working on a 10-inch reflector (we also make up for them.) My pet love is galaxy hunting, and I hope that before my 65th birthday my 10-inch mirror comes in so I can open up new thresholds to this passion.

And what about the club? There are many avenues we can take and many things that can be done to both continue spurring interest in our members and the general public. Some ideas circulating around are:

- Observing contests periodically during our monthly star parties.
- Small sessions on beginner astronomy and terminology, what books and telescopic accessories to purchase.
- Tips on how to use your telescope, find your way around the sky for both beginner and advanced observer.
- What to do with the club library to promote better usage by members.
- What to do with the club telescope.
- Letter campaigns to political figures to urge continuation of our space program.

The list can, does, and will go on. So climb on--the view from the top is challenging, but the alternative is--?

-- RUSS GENZMER

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THE PRAIRIE ASTRONOMER is published monthly by the Prairie Astronomy Club, and is free to club members. Yearly subscription without club membership is \$6.00. Regular membership, \$16.00. Family membership, \$18.00. Memberships include 1-year subscription to SKY & TELESCOPE, club newsletter, and 4 quarterly issues of THE REFLECTOR, Journal of the Astronomical League. Address correspondence and membership renewals to: PRAIRIE ASTRONOMY CLUB, INC., P.O. Box 80553, Lincoln, Nebraska 68501.



## At Last Month's Meeting...

Since your editor was absent from the October election meeting, the following report comes from the Official Minutes as tendered by Secretary Merton Sprengel.

**PRESIDENT:** Russ Genzmer, by acclamation. No further nominations were made.

**VICE PRESIDENT:** Ron Veys won over Dave Knisely (15 to 5, secret ballot.) In the "c(h)ampaign" speeches Dave said he volunteered -- more or less--because nobody else did. Ron agreed to do it upon Russ's invitation.

This is a real high-class democracy, run by volunteers. (Ed. note: I repeat, this account comes from the Official Minutes. I am not responsible for these extraneous asides.)

Jack clued us in on the real reason why Ron was running ... "the new president needs lots of help."

The election tally was real "honest." Ron did it on the chalkboard, and wrote down 4 votes for himself before the tally began. (He did erase them, though.)

**TREASURER:** Lee Thomas was voted in. He was not present to defend himself against taking on the newsletter in addition. His impassioned pleas last month to be let out of that job went largely unheeded.

Ron, however, did make a request of the club members to provide Lee with copy for the newsletter. (Ed. note: See how effective that request was? I'm forced to scrounge in the Official Minutes for enough copy to fill the newsletter. A new low has been struck.) I believe it was John

Lortz who also volunteered to help Lee on the newsletter, in some unspecified ways.

**SECRETARY:** Merton Sprengel. Voted. (Ed. note: Notice the absence of any little drolleries regarding this particular candidate?)

**PROGRAM CHAIRMAN:** John Lortz. Voted.

The officers named above are now in charge, predictions of imminent doom notwithstanding.

## Quickie News Notes...

EARL MOSER and STEVE KELL... you haven't picked up your Tirion Sky Atlases yet!

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TELESCOPE MAKING MAGAZINE #13 has arrived. If you are on the list, please bring \$1.25 to the meeting and pick up your copy. People who signed up to buy TM are Ron Veys, John Lortz, Roger Grant, Russ Genzmer, Norm Frerichs, Dan Neville and Donn Baker.

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No sign of Sky Calendar 1982 or Observers Handbooks at press time. Still a chance they might arrive in time for the meeting, though.

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WELCOME A NEW MEMBER: James Reimnitz, 4305 Sumner St., Lincoln.

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Although NASA's budget has already been cut some 7.5% for fiscal 1982, which has effectively eliminated a U.S. Halley's Comet intercept mission and a solar polar orbiter, Reaganomics now threatens to eliminate NASA's

(Continued on Page 4)



## November Meeting--

*Continued from Page 1*

participant in past years' events, this will be our first opportunity to size up next year's prospects.

Next, there will be a videotape replay of the shuttle launch and landing.

Finally, Jack Dunn will report on progress at the Cosmosphere in Hutchinson. Those who made the trek last spring to see this ambitious project in its formative stages, and who vowed to make a return pilgrimage upon its completion, will be especially interested in this update.

Finally, you might want to bring along the person who always says they can't think of a thing to give you for Christmas. B. Dalton Books is providing a display of their current

astronomy books to stimulate imaginations (and maybe some sales!)

**Notes--***Continued from Page 3*  
space science function completely.

Under one plan, Project Galileo, a \$500 million program for which \$200 million has already been spent, would be cancelled, along with the Venus Imaging Radar. In addition, the Deep-Space Network would be shut down, ending contact with Voyager 2, and eliminating Uranus and Neptune data in 1986 and 1989 respectively.

If, like Walt Baumann and many other concerned members of our club, you disagree with these cuts, plan to write your congressman and sit in on the discussion planned for the November meeting. We'll talk about how we can work to save what's left of America's space program.

The Prairie Astronomer  
c/o PRAIRIE ASTRONOMY CLUB, INC.  
P.O. Box 80553  
Lincoln, NE 68501

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