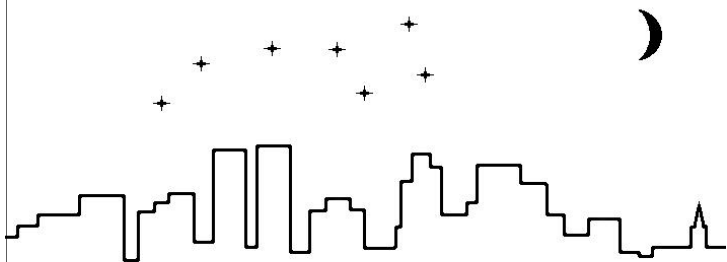


STARLITE

THE OFFICIAL PUBLICATION OF
THE PEORIA ASTRONOMICAL SOCIETY

www.astronomical.org



Peoria Astronomical Society

FALL 2008

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Please welcome our newest members!

ANNE & KEVIN
MORRISSEY

LESLIE KENYON

LARRY DAVIS

DR. ALLAN CAMPBELL

CHRIS DITTMEIER

TONY BIRGE

KEVIN KIMBERLIN

KATHLEEN REGAN



PAS Annual Banquet is September 20th!

By Tim McGrath

The PAS Annual Banquet will take place on Saturday, September 20th, 5:00pm. The location will be at the Quail Meadows picnic shelter at Jubilee State Park. As in the past, it will be potluck style. The PAS will provide chicken, kool-aid, and coffee. All members are encouraged to bring a covered dish or a dessert to share. You will also need to bring your own plates and table service. You are also encouraged to bring your telescopes for observing later in the evening, should the weather permit.

Following dinner, we will hold a brief meeting to discuss and vote on proposed changes to our by-laws, and elect our 2009 officers.

2009 Slate of Officers:

PRESIDENT	Mike Hay
VICE PRESIDENT	John Barra
TREASURER	Brian Hakes
SECRETARY	Dan Son
LEGAL AGENT	Mike Hay
PARLIAMENTARIAN	Eric Clifton
NOMINATING	Phil Burroughs



2009—The International Year of Astronomy

By Rich Tennis

IYA2009 is coming...and there is much that PAS can do in the objectives that the astronomy world is going to celebrate IYA2009. What is IYA2009, you ask? Well, this next year, 2009, will celebrate 400 years since the first astronomical observation through a telescope by Galileo Galilei was done.

The plans for this worldwide celebration are being coordinated by the very biggest organizations in the astronomy world. First, is the United Nations under the UNESCO endorsement December 20, 2007. Others are: IAU (International Astronomical Union), UNESCO (United Nations Educational, Scientific and Cultural Organization), ESO (European Southern Observatory), INSU (L'Institut National des Sciences de l'Univers),

Sterrewacht Leiden, Science & Technology Facilities Council, sc|nat (Swiss Academy of Sciences), Ministerio de Educacion y Ciencia (Spain), ESF (European Science Foundation), DLR (Deutsches Zentrum für Luft- und Raumfahrt), The Planetary Society, AAS (American Astronomical Society), Canadian Astronomical Society, NRC-CNRC (National Research Council Canada, National Research Council Canada), NOVA (Nederlandse Onderzoekschool Voor Astronomie), SPA (The Society for Popular Astronomy), NAOJ (National Astronomical Observatory of Japan), esa. (European Space Agency), NASA (National Aeronautics and Space Administration), cnes (Center National d'Etudes Spatiales), and JAXA (Japan Aerospace Exploration Agency).
Note: I am sure you already knew what those letters meant.

Continued on page 2...

Treasury update...

By Brian Hakes

The table is of the society's cash balance at the end of July 2008. The balance is for both the general fund and the temporary restricted fund which is for the dome replacement for Northmoor Observatory.

Peoria Astronomical Society Account Balances July 31, 2008

PAS General Funds

Ending Checking Account Balance	\$2,153.12
Total Savings & CD	\$7,580.65
Total General Funds	\$9,733.77

Northmoor Temporary Restricted Fund

Savings Ending Balance	\$24,473.61
CD Ending Balance	\$28,417.76
Total Temporary Restricted Fund	\$52,891.37

The PAS general fund is the money for the operations and maintenance of the PAS and its telescopes. The Northmoor Temporary Restricted Fund is money for the capital improvement of the observatory, specifically the dome. At the present the PAS has almost \$53,000 in that fund. However, money has been spent from the fund.

A \$20,000 payment to Ash Manufacturing was made as a down payment on the new dome. So far the PAS has raised almost \$74,000. But through the effort of Margo Tennis, the PAS has been awarded matching grants of up to another \$20,000. The PAS is assured of at least \$10,000 of the matching funds but Margo continues submit grant applications.

While the fund raising efforts are still short of the \$125,000 goal, Rich Tennis has also been soliciting "in-kind" contributions. These contributions will come from predominately from the Peoria Park District and the Peoria Building Trades Council. PAS members will also have the opportunity give of their time. Tasks are being finalized but there will be work to be done. So everyone can give a little of their time to work on a project that happens only once in a lifetime. 🐛

2009—The International Year of Astronomy *...continued from page 1*

The goals and programs can be seen at the following web sites:

www.100hoursofastronomy.org, www.cosmicdiary.org, www.portaltotheuniverse.org,
www.sheisanastronomer.org, www.darskiesawareness.org, www.whc.unesco.org,
www.galileoteachers.org, www.unawe.org, www.developingastronomy.org,
www.fromearthtotheuniverse.org, www.developingastronomy.org, www.twanight.org.

PAS will have programs and projects during the next year, 2009, which will be coordinated by John Barra. So, contact John if you would like to be part of the PAS, and world, effort to celebrate the 400-year anniversary of the astronomical telescope and the wonderful world that it opened up to mankind. I am sure that your efforts will give you personnel enjoyment in your hobby.



Astronomical factors affecting global climate change – another perspective

By Sheldon Schafer

In the summer issue of Starlight, an article reflected on astronomical factors affecting climate change. The summary of the article concluded with a flippant statement suggesting that global warming is a hoax. I quote from the article: “History has shown that increased sunspot counts and solar activity creates a warming effect on earth. Decreased activity creates cooler global temperatures. Scientists are worried that we may be entering a cooling period with their predictions of less solar activity than usual. The last 2 solar cycles had increased activity and we had some global warming. Plants and animals appear to flourish with the warmer temperatures. Cooler global temperatures can be disastrous. So much for global warming!”

Since that conclusion is not supported by the vast majority of literature on the climate change, I'd like to offer a response.

Scientific American, in the August 2007 issue, summarized the current literature on climate change. The authors represented front-line climate and atmospheric researchers from England, Australia and the United States, including NASA. Their conclusions were that:

- * Scientists have quantified the magnitude of and uncertainties associated with each of the solar factors (solar cycles, total solar irradiance, and orbital factors), and through a combination of direct observations and modeling, “can now confidently estimate the total human induced component is 10 times larger than the best estimate of the natural radiative forcings caused by changes in solar activity.”

- * Scientists are now confident not only that humans have interfered with the climate and that further human-induced climate change is imminent.

- * The principal driver of recent climate change is greenhouse gas emissions from human activities, primarily the burning of fossil fuels.

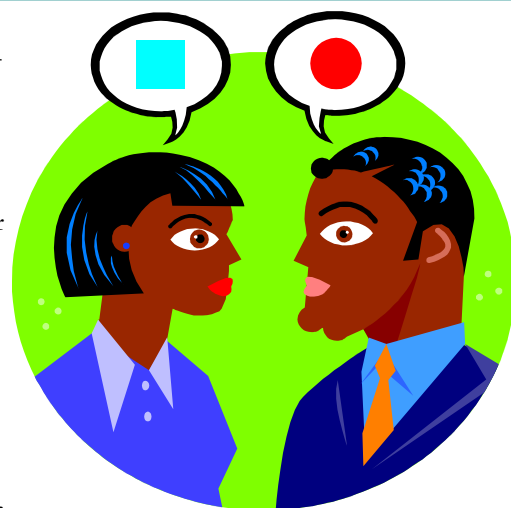
- * Based on six years of additional evidence, the report of the Intergovernmental Panel on Climate Change — the world's collaborative group on climate research — has raised the probability that global warming has been caused by human activities from 66 percent to 90 percent.

- * Changes in the world's climate are now inevitable. The magnitude depends on what we do. If we do nothing, an increase in average global surface temperatures of as much as 9 degrees is possible, with catastrophic consequences. (Scientific American, August 2007)

The statement “History has shown that increased sunspot counts and solar activity creates a warming effect on earth. Decreased activity creates cooler global temperatures. Scientists are worried that we may be entering a cooling period with their predictions of less solar activity than usual.” needs further analysis. While the first sentence is true, the warming effect is very small compared to the magnitude of the changes we are seeing. The second sentence refers to a statement made by Phil Chapman, Australia's first astronaut, to the Australian press in April. His statement might be worthy of consideration were it not for the fact that it was “based on a misuse of scientific data. Chapman's thesis, “that 2007 was exceptionally cold,” is based on “anecdotal evidence” and his claim takes the weather vs. climate confusion a step further. Instead of comparing trends, or even yearly averages, he is comparing January 2007, one of the hottest months on record, with January 2008, 0.7C cooler and one of the coolest Januaries in recent years thanks to La Nina. In fact, if Chapman had applied the same methodology to March of 2007 and 2008, he would find that the warming trend has returned” (Hollo, 2008), and I also went to the same data set to confirm Hollo's analysis.

As for the statement “The last 2 solar cycles had increased activity and we had some global warming. Plants and animals appear to flourish with the warmer temperatures.” That statement should more properly read, “some plants and animals appear to flourish with warmer temperatures.” Other species, such as the polar bear, face extinction within the next 100 years (Derocher, University of Alberta, Edmonton; Siegel Cummings, Moritz, & Nowicki, A report by the Climate, Air, and Energy Program, Center for Biological Diversity, October, 2007 and numerous other citations)

This discussion should also include mention of Total Solar Irradiance (TSI), a measure of how much of the Sun's energy reaches Earth on a given day. “We have satellite measurement of total TSI since 1979, and reconstructions prior to that. Comparing TSI to global temperatures reveals that, although TSI and temperatures other followed similar trajectories prior to the early 1970s, they have diverged significantly since then, with trends in TSI remaining relatively flat while temperature increases have accelerated.” (Hausfather, 2008)



Sheldon Schafer
Planetarium Director and Astronomy Instructor

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Upcoming Events—mark your calendars!

ICC Fall Star Party

Once again, PAS is hosting the ICC astronomy classes at Jubilee Observatory. This event draws upwards of 40 guests, and has an excellent track record of clear skies, good viewing, and good times!

Friday Sep 5th is the primary date, with Sep 6th, Sep 19th, Sep 26th & Sep 27th as backup/rain dates.

Astrofest 🌟

September 5h—7th
<http://chicagoastro.org/af/>

Prairie Skies Star Party 🌟

September 25th - 28th
<http://www.prairieskies.org/>

Illinois Dark Skies Star Party 🌟

September 25th - 28th
<http://www.sas-sky.org/>

PAS road trip to Yerkes Observatory!

Rich Tennis has arranged for a limited number (up to 20), of PAS members to visit the Yerkes Observatory at Williams Bay, Wisconsin, for a full tour of the facility and an evening viewing through the world's largest refractor telescope, 40 inches in diameter! Two dates are considered: Saturdays, October 25 or November 1, 2008. These dates bookend the new moon, October 28th.

The total trip cost will be about \$325 for the group, or \$30 per person. This is for van rental, gas, and tour cost.

Details will be discussed more completely at the PAS Annual Banquet, Saturday, September 20th. This may be your one last chance to look through a historic telescope at really old star formations...of our choosing!

Future PAS Programs

October: The Great Debate 3

November: Northmoor Restoration 2009 update

December: Astro-Jeopardy!

January: 50 Things to see before you die

February: TBA

March: Messier Marathon

Meetings will be held at 7:30pm at Lakeview planetarium on the first Wednesday of the month.