



The Prairie Astronomer

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Cooler Sun = Cold Winter of '81-82?

The sun has been putting out less energy, a condition that could have been a cause of this year's harsh winter. For two years, a U.S. satellite has recorded the decline in solar energy output.

"The duration and magnitude of the change is certainly enough to have had an effect on our climate", said Dr. Richard C. Willson of California's Jet Propulsion Laboratory, where a sun-looking telescope was built and put aboard the Solar Maximum Mission Satellite. "At the very least, it's a suspicious coincidence," he said.

In the 18 months starting Feb. 16, 1980, the telescope found an almost continuous decline in the sun's radiant energy.

Willson found that the sun's output of light at the end of the 18-month period was one-tenth of one

percent less than it had been when the satellite started measuring solar luminosity.

"This is a small change," Willson said, "but it has great potential significance for the earth's fragile ecosystem."

Scientists believe that any systematic rise or fall in the sun's release of energy can change the earth's climate. A decrease of as little as one-half of 1 percent in the 17th century--called the Maunder Minimum--is believed to have coincided with the cold extremes felt throughout Europe in what is now called the Little Ice Age.

While hesitating to blame this year's colder-than-normal winter on a drop in solar radiance seen two years ago, Willson said there could be a strong relationship if only because it takes at least a year for any changes by the sun to be felt on earth.

"There is a long lag on earth because the atmosphere and the oceans are so slow to heat or cool", Willson said.

Willson's findings confirm a somewhat cruder discovery made in 1980 by an instrument aboard the Nimbus 7 weather satellite that the sun was losing as much as one-twentieth of 1 percent of its energy through all of 1980.

The findings of both spacecraft

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APRIL MEETING

The April meeting of the Prairie Astronomy Club will be held April 27th, 7:30 pm at Hyde Observatory. This month's program will be presented by Russ Genzmer who will tell us the ins, outs, ups, and downs of constructing a 10-inch Newtonian with an equatorial mount. You won't want to miss these words of "wisdom" so be sure to attend!

President's Message:

This corner is dedicated to all the volunteers who had a hand in what I thought was an excellent display for our observance of National Astronomy Day.

To those volunteers who helped to build the displays, helped set up at 8:00 a.m. Saturday morning, to those who helped to staff the displays during the day, especially Dave Knisely and Rick Johnson (who year after year seem to be there every hour of the day), and to those who volunteered their time to help me Saturday night for Public Night at Hyde Observatory, a sincere thankyou! I had 3 volunteers lined up Friday night, but by Saturday night 7 had actually shown up. (We needed them, because we had at least 250 people out there.) All of the above get a big Cosmic Thanks!

But a special thank you is set aside for our Program Chairman who also took over the organization of the Astronomy Day program, John Lortz. John is a Med student, and has a rugged schedule. He lives in Lincoln and commutes to class every day in Omaha. And on top of that he has to find time to study. After all, we all know it takes many years for doctors to refine the art of tactfully saying, "Take two of these and call me in the morning." (That's a joke, John.)

On top of all this, he did an excellent job of getting people together--planning, building, scheduling and all the other aspects that go into putting one of these on. The display speaks for itself. It was neat; the increased signage gave us greater identity. Even the marquee outside the mall promoted us.

Congratulations to John and to all of the P.A.C. volunteers. You have shown once again that the best workers are volunteers who give freely of their time for something they really enjoy.

--RUSS GENZMER

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ASTRONOMY DAY

The Prairie Astronomy Club's 1982 Astronomy Day was celebrated this past April 17th from 8:00 AM to 6:00 PM at the Gateway Mall. It was a great day for young and old as visitors wandered by the array of telescopes, computers and posters wondering what place on Earth all the astronomers and their high-powered equipment had come from. The solar telescope was set up just outside the Mall entrance as an attraction to direct people to the main display area in front of B. Dalton's. Some fine sunspots drew "oohs" and "aahs" from many observers and Lee Thomas's great handout on the PAC and amateur astronomy left most people with no choice but to visit the main display.

Beneath Brian Schaaf's superb sign (sign stand by Ron Veys) were scattered six club members' telescopes, two excellent computer shows, a shuttle launch videotape, two slide-tape shows, and masses of handouts, poster

displays and astrophotographs. Few people passed by without stopping or at least looking through one of the telescopes at a dime placed about 50 feet away.

Astronomy Day 1982 ended with about 200 visitors to Hyde Observatory Saturday night to enjoy some warm weather and a nice clear night. All in all, you would have to say it had been a great day.

--JOHN LORTZ

HUTCHINSON II

The second annual trip to the Cosmosphere got off on April 3rd this year with about 15 members making the 5-hour trip (which, by the way, is quite scenic!) through Kansas, and arriving in Hutchinson on Saturday evening. That night everyone was treated to two special showings of "Genesis" and the old favorite "To Fly." The next morning club members and guests went on a behind-the-scenes tour of the complex and the space museum. About 1:00 pm everyone (except

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IF YOU MISSED OUR LAST MEETING...

Astronomy Day being only a few weeks away, plans and ideas for the yearly event dominated the business part of the meeting. Basic plans and who was doing what was worked out and a positive vote was taken to provide \$10.00 for needed materials.

Jack Dunn asked for a confirmation on who would be going to Hutchinson on April 3rd, and about 15 people signed up for the trip. Cars would leave Lincoln at noon on Saturday.

Programs were next with Ron Veys presenting an informative slide program on his recent visit to the Manned

Spacecraft Center in Houston. Behind the scenes observations were made by Ron as he was guided around the center by a distant "cousin" who just happens to work for NASA. Astronaut Veys even tried his hand at bringing the shuttle down in a very real appearing flight simulator (he only had one fatal crash!)

Jack Dunn ended the evening with a very funny and new look at some old questions on the universe. His slide-tape show was entitled "Universe Games."

Open House for Public At Behlen

Public night at Behlen Observatory will be held Friday, April 30, 8 - 11 PM. Observations of the planets will be featured this time. The same "alignment" of the planets which recently led to a lot of talk about a "Jupiter effect" will make it possible to view many of the planets through the 30-inch telescope in one evening. The first quarter moon will also be ideal for viewing. There is no admission charge.

Reach Behlen Observatory by going North on Highway 77 from Lincoln beyond Swedeburg, East on Highway 63 to Avenue C, and North to between Third and Fourth on the Mead Field Lab grounds (just north of the KUON-TV tower.)

HUTCHINSON REPRISE (from Page 3)

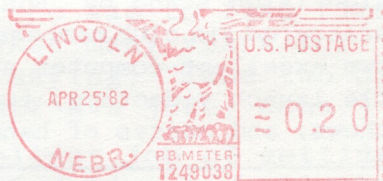
a few who just had to see "Genesis" again) took off for Lincoln.

This year's trip found the Cosmo-sphere a greatly changed place. Since last year, the Space Hall had opened with about 40% of the display work done. The Space Hall takes visitors on an historic visual tour through the first days of backyard rockets all the way to manned space flight, with displays such as John F. Kennedy Hall, and impressive line-up of spacesuits and their prototypes, Gemini and Mercury space capsules, and a full-scale mockup of a lunar lander.

COOLING SUN SYNDROME (from Page 1)

are the strongest suggestions yet that the sun does not deliver an unchanging supply of energy.

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