

THE FOCAL POINT

Vol. III, No. VIII

The Newsletter of the Atlanta Astronomy Club

April 1991

CLUB CALENDAR

Next Meeting: Our next meeting is Friday, April 19, 1991. We regret that further details of the meeting were not made available to the editor by presstime. If you would like to attend the next meeting, please call Steve Gilbreath, Program Chairman, 634-7466 for information concerning the place and time.

Program: Details regarding the program were also not given to the editor. We regret the inconvenience due to this lack of information.

Editor: Dr. Mike Kazmierczak
Contributing Editors: Dr. Ralph Buice, Hal Crawford

The *Focal Point* is published monthly during the academic year by the Atlanta Astronomy Club, Inc. The AAC is a non-profit organization dedicated to the advancement of amateur astronomy. Meetings are held on the third Friday of each month (the second Friday in December) at the Bradley Observatory on the Agnes Scott College campus. Dues are \$35 annually and include a subscription to *Sky & Telescope* magazine and use of the observatory in Villa Rica.

Submissions: Article submissions are welcome and encouraged. Please deliver to the editor for consideration. Electronic submissions are accepted at mike%beow.uucp@gatech.edu. The submission deadline for the next issue is *May 8*.

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FROM THE PRESIDENT:

Spring is in the air, bringing thoughts of ...elections? Yep, one more time, elections are to be held to elect the leaders of the prestigious and world renowned Atlanta Astronomy Club. If there is something you don't like about the club, this is the ultimate way to make yourself heard! The elections will be held in May at the annual AAC Banquet (see below). As stated in our bylaws, we will elect not only the officers, but the Board of Directors as well (we have four of them).

The officers are vital to the continued smooth operation of the club. I have appointed Shelby Emory to head the nomination committee for officers. If you have any suggestions that you would care to make (or if you just have that yearning for power that only an AAC office can quench), please let her know. In addition, any last minute candidates can be added with a motion and a second at the May meeting.

This may sound like I'm trying to get myself or my fellow officers replaced (I'm not). In fact, I am proud of the leadership of our club this year and hope most of you will agree that we are moving in the right direction. But this is a democratic organization, and I'm a firm believer in the election process.

I usually make a big push this time of year for volunteerism, and this time it won't be much different. There is only one way you can keep the Atlanta Astronomy Club thriving and active – participate! Your warm body is welcome at all events, particularly observing sessions and meetings. We want to see you; I want to see you!

The best results are when each member gets involved in their own way. One of my favorite programs this past year required a good bit of volunteerism. In November we had the "Telescope Show and Tell/Buyer's Guide," and called on members to present their telescopes to the club. The response was both enlightening and impressive. The sharing of these experiences alone made this one of my most memorable meetings.

Please do not hesitate to volunteer your time if you can contribute. Your time and energy is not only welcome, it is very much appreciated. To cite another example, the biggest challenge that I have noticed in the past year is locating speakers for our monthly program. I know that we have many experienced amateur astronomers in our club who could probably provide an informative program if just given the

opportunity. Perhaps someone knows of someone not necessarily affiliated with our club who can present a program. Please keep in mind that many of us would probably be interested in how you did the photograph of that lunar eclipse back in '81, or how you completed the Messier Marathon in 90 minutes. Give us a chance!

If you have any ideas on how the organization can improve, please let me or another officer know. I think the surveys which were distributed to the membership last month will help provide a good indication of what we need to do to keep our organization's goals in focus.

It is your efforts and contributions that keep us going. Stay involved!

Speaking of involvement, I want to make sure that everyone looks at the entry in the Gallery section of the May *Sky & Telescope*. Our own Paul Dyches has a star trail photo on page 560. Paul made a 1 hour exposure of the Western sky, showing the setting of Jupiter and the Pleiades (hmmm, I wonder if I can get him to do a photography workshop??)

May is also a big month in *Astronomy* magazine. Rich Jakiel has an article published on page 78. Anyone interested in learning about galaxy hunting in the Big Dipper should pick up a copy and learn from one of our best observers!

Hal Crawford

ASTRONOMY DAY IS COMING!!!

April 20 is Astronomy Day. Historically, this event has introduced thousands of people all over North America to what astronomy is all about. The Atlanta Astronomy Club is planning to get involved this year and show the public that "Astronomy is for everyone." Although the final details are still being worked out, the main event will likely be at Fernbank Science Center from 12 noon until 5 P.M.. Members will be on hand to demonstrate the operations of their favorite telescopes and to show the interested how to learn more about the cosmos above (other than to join the AAC, of course!). Handouts and other materials will be provided for the public, as well as computer demonstrations of popular astronomy programs and presentations of the state of amateur astronomy today.

An outdoor event is also being planned. Final details of this event will be announced at the April 19 meeting. The assistance of members in helping out with this event would be appreciated. If you can assist in any way (poster making,

showing off your telescope, etc.), please give Bill Snell a call at 633-4050.

STARS OF JADE

Julius D. W. Staal, F.R.A.S., may not be well known to many AAC members, but for many years he was the planetarium director at our own Bradley Observatory. Before then he was a prominent figure at Fernbank Science Center. He died in 1986, but the preceding year he published *Stars of Jade*, a book that is the culmination of his interest in ancient Chinese astronomy.

It may surprise many people to learn that Chinese records of the sky date back to 15,000 B.C. Much of this information was published by Gustave Schelgel in a two volume work, *Uranographie Chinoise*, written in French. Staal translated much of that work into English, providing a book full of mythology, calendar lore, and star stories concerning the four sky animals: the Blue Dragon of Spring, the Red Bird of Summer, the White Tiger of Autumn, and the Black Tortoise of Winter.

This work is over 225 pages and has a bookstore price of \$24.95. The publisher of *Stars of Jade*, Writ Press, has approached the AAC with a special offer for members. He has made a number of copies available for only \$20.00.

If anyone is interested in obtaining a copy of this fascinating work, please call Hal Crawford or let him know at the next meeting so he can reserve you a copy.

ATLANTA ASTRONOMY CLUB BANQUET ANNOUNCED

The May meeting of the Atlanta Astronomy Club will actually be the annual banquet. It will be held on **Saturday, May 18, at 7:00 P.M.** at the Northlake Steak & Ale Restaurant. The Steak & Ale is located just outside I-285 off the LaVista Road exit. A large dining area has been set aside for our use. Members are free to order what they would like off of the menu. A 15% gratuity will be added to your order.

A brief meeting will follow the dinner, beginning with the annual elections of the 1991/92 officers and followed with a brief presentation of the year in review.

All members are encouraged to attend this annual event. In order to provide the restaurant management with the number of members expected, please contact Hal Crawford at 320-9156 by May 6.

FINANCIAL REPORT

Statement of Receipt & Disbursements

	3 months ending 2/28/91	6 months ending 2/28/91
Cash balance beginning	267.44	96.38
<u>Receipts</u>		
Dues	1149.00	2206.00
Sale of Publications	59.00	162.00
Contributions	10.00	15.00
Interest	6.97	9.66
	<hr/>	<hr/>
	1224.97	2392.66
<u>Disbursements</u>		
Sky & Telescope	612.00	1160.00
Newsletter	125.00	325.00
Sale of Publications	44.00	210.00
Observatory	31.73	104.36
Office Expense	11.68	21.68
	<hr/>	<hr/>
	824.41	1821.04
Cash balance 2/28/91	668.00	668.00

CONTRIBUTIONS OF AMATEUR ASTRONOMERS

by Hal Crawford

(This material has been prepared as one of the handouts for the Astronomy Day event. If anyone wishes to add to this, please let me know!)

Few people realize that astronomy is one of the few sciences where amateurs actually make valuable contributions. Below is a partial list of the activities that amateurs perform:

Comets: Most comets are discovered by amateur astronomers. After discovery, photographs of comets are used for documenting their brightness and progress as they sweep past the sun. Amateurs also create spectrograms, which are used to determine the comet's chemical makeup. Finally, amateurs perform astrometry calculations to compute the comet's orbit.

Meteors: Amateurs participate both in observation and photography, performing an hourly count of meteors, and measuring each meteor's time duration for determining velocity and origin of meteors. Even the color and the way a meteor moves across the sky can provide valuable data in determining chemical composition and cosmic origin.

Supernovae: One of the most powerful forces found in nature, many supernovae in distant galaxies are discovered by amateurs. Early detection of a supernova is crucial so that many individuals can study this phenomenon in the first few hours or days of its progress.

Variable Stars: Many stars vary in brightness over time. One entire class of such stars, Cepheid Variables, can be used to determine distances to distant galaxies. Amateurs measure and report on these and other stars with regard to the amplitude of variation (range of brightness), time duration of the stellar cycle, and regularity of the cyclical curve.

Occultations: An occultation occurs when the path of two stellar objects cross each other. Frequent occultations occur between the moon and distant stars or asteroids, or the moons of Jupiter with Jupiter itself. By timing these celestial events, accurate measurements can be made to determine stellar positions, the orbits of asteroids and planets, or even the graphic outline (mountains and valleys) of the moon itself.

Astrophotography: Amateurs are increasingly providing a visual record of galaxies, supernovae, comets, planets, nebulas and galaxies with both photographic film and video camera techniques. Technological advancements over the last decade have given amateurs new capabilities to record faint portions of such objects that were previously unattainable.

Increasing Public Awareness: Amateur astronomers provide a valuable conduit of information for the public. Amateurs conduct star parties, helping interested people observe and learn firsthand about the night sky.

It should be noted that amateur astronomers do the bulk of their work under clear dark skies away from cities. Most data gathering can be done only where there is minimum interference from lights which shine directly into the sky and cause skyglow.

WELCOME NEW MEMBERS

We would like to welcome the following new members who have joined the Club recently.

Greg Roy, Eric Shelton, Randall & Debra Hartwig, and Ken, Linda and Lisa Sharpe.

Please take a moment to welcome these new members when you see them at our meetings or at our observing sessions.

Recent Observations

A FLEETING MOMENT AND OTHER TALES

by Mike Kazmierczak

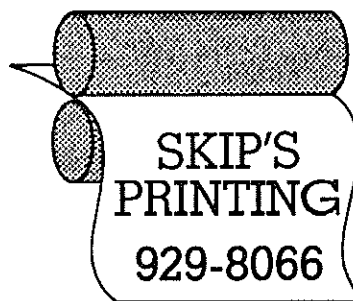
I was resting in my bed on a Sunday evening, thinking about work the next day. I had just fallen asleep when the phone rang. I was startled and had vile thoughts of who could be disturbing me after 11:00 P.M. It was Chuck, a colleague from work, stating that he was watching this strange red glow in the northeast. I hopped up and took a look. Before I got outside, I figured it could either be an aurora (!) or a barium release experiment. It was bright red and covered about 40 degrees vertically and 60 degrees horizontally. There were no

sheets or undulations, so I wasn't sure what it was. I got the camera, but was unable to photograph the phenomena. The whole aurora only lasted about 10 minutes after Chuck called me. It was exciting, as I had never seen an aurora before. Afterwards, I turned on WWV to listen to the geomagnetic activity report (18 minutes past the hour). The solar activity was high, so I thought it was an aurora!

I have also spent time looking at Mercury recently. I read in *Sky & Telescope* that the best evening apparition of the year was in late March. Over a period of about two weeks, I could be found on clear evenings, gazing near the western horizon looking for Mercury. I think I pointed Mercury out to my wife and daughter (again!) and a few other people. This is what amateur astronomy is all about.

The Pleiades occultation passage of early March was cloudy for me, but the next evening had quite a few total occultations. Nothing exciting or different here except that my daughter, Rebecca, timed her first total. Her time was reasonably good, and I think she thought it was neat. My father got me interested in astronomy by looking through his telescope. This evening reminded me of that time, a long time ago.

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