

SIDEREAL TIMES

The Official Publication of the
Amateur Astronomers Association of Princeton

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Michael Mitrano

Program Chairman

Ludy D'Angelo

Assistant Director

John Church

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Larry Kane

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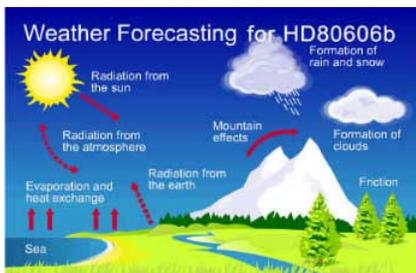
Volume 38

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Number 2

From the Director

"Oh the weather outside is frightening..." So goes a phrase from the popular 1945 song, "Let It Snow." by Sammy Cahn and Julie Styne. We haven't gotten a lot of snow, but it sure has been cold. Cold enough to keep all but the most intrepid amateur astronomer huddled by the fireplace. We do have our intrepid souls, of course. Member Brian Van Liew met up with a number of other astronomers at Coyle Field in Burlington County last week to do some astroimaging. The temperatures were in the low teens, but these brave (read crazy) stargazers got some excellent images, and they had a barbecue to boot! Brian imaged NGC 2244, The Rosette Nebula in Monoceros, producing impressive detail and color. I hope it's included in this issue of Sidereal Times [*See page 2*].



Speaking of weather. I read a JPL news release this week exclaiming that astronomers using NASA's Spitzer Space Telescope have observed a planet, orbiting a star 190 LYs distant – and they have determined weather patterns from the data. Really? Most forecasters *still* have difficulty getting local terrestrial weather differentials correct (have you planned your telescope sessions using Clear Sky Clock?). However, in this case, astronomers are calling the shots for an atmosphere roughly 1.1 quadrillion miles from the Sun. Want more? Go here: <http://planetquest.jpl.nasa.gov/>

At last the Sun is trekking higher in the sky every day, and the days get progressively warmer. Sooner than later it'll be time to dust the dust off the dusty dust caps (for those of you who don't have backyard observatories) and bring those Newtonians, SCTs and refractors under the sky. Remember that our Simpson Observatory Public Nights begin the 2009 season on April 3rd. This is a great opportunity to bring your scope and associated equipment out for a drive – with an added bonus of sharing your love for the sky with an eager public.

The deadline for the March issue is:

Friday February 27, 2009

Send your submissions to:

editors@princetonastronomy.org

We had a good turnout for the board meeting last Tuesday. Included were John Giles, Ron Mittelstaedt, Gene Ramsey, Brian Van Liew, Ludy D'Angelo, Michael Mitrano, Larry Kane, Bill Murray, and yours truly. Items discussed included: repair of the Simpson Observatory rear roof, an "observatory" guiding sign toward the front of the Washington Crossing Park entrance, membership renewals, treasury items, ground leveling work for the cleared east field at the observatory and the need for a new Membership Chair. We are currently in need of a Membership Chair and need your help. This critical position assists in sending greetings to new members, coordinating the member roster with the Secretary, Treasurer and web master and notifying the club about membership renewals. Please send an email to me (see masthead) if you'd like to lend a hand—it would be appreciated.

Cheers—John Miller, Director

Membership Meeting Minutes January 13, 2009

Assistant Director John Church called the meeting to order

Program Chair Report Ludy D'Angelo reported the schedule for up-coming speakers. All slots except March are filled. The question of a June meeting is still unresolved. He asked for member input for future speakers.

Treasurer's Report Treasurer Michael Mitrano provided a more detailed report that will be listed in the January issue of Sidereal Times. He stated that at present, our paid membership is about eighty with more dues payments coming in.

Secretary/Archivist/Library Report Kane stated that he had software problems which caused a delay in getting out the Sidereal Times. He stated that Director John Miller assisted in sending out the edition to the membership.

Outreach Report Jeff Bernardis was not in attendance but John Church announced that Friday, January 30 is Science and Discovery Night at the Lawrenceville School from 6:30 to 8:30 regardless of weather. Thursday, February 26 we are scheduled at the Stuart School in Princeton, and Saturday, April 25 is a one-day event for Super Science Weekend in Trenton

Observatory Committee Ron Mittelstaedt suggested that some money be spent on fixing the roof of the observatory. Gene Ramsey stated that he replaced the batteries in the Telrads. Gene stated that he has the name of a contractor that he can recommend to get an estimate on the roof work on the observatory. A large group from Burlington wanted to come out to the observatory in February. Questions were raised about the appropriateness of being there if the roads are snow covered. Ron Mittelstaedt is the point person, in conjunction with John Miller. Rex Parker asked if there are enough key holders to fill the roster for duty nights. It was mentioned that key holders not on duty usually show up on public nights to help out.

Sidereal Times The next deadline is January 30,

New Business A question was raised about any activities related to The Year of Astronomy. The issue of publicizing club activities was raised. Gene Ramsey discussed his meeting with a reporter from the Hopewell Valley News whom he took out to the observatory, and the resulting article that was published. Ron Mittelstaedt reported that the next Stokes Star Party is the second week in April.

Larry Kane, Secretary

Rosette Nebula NGC 2244 from Coyle Field



Submitted by Brian Van Liew

AAAP Board of Directors Meeting Minutes January 27, 2009

Director John Miller called the meeting to order.

Bill Murray announced that Super Science Weekend at the Trenton Museum will be "Super Science Day" this year and that the AAAP is invited to participate.

Membership Chair John Miller initiated a discussion of the Membership Chair position vacated by the sudden death of Linda Papetti. It was agreed that a job description was needed and it was thought that Rex Parker may have one. The job requires a "people person." A benefit of the position would be to present a welcome package to new members; without something like this, what do members actually get for their dues? New member John Giles reinforced this sentiment. John Miller offered to send out a notice to the membership inviting someone to take up this position. He will also check with Rex Parker to see if a job description exists. Gen Ramsey recommended that an announcement be made during the next monthly meeting before the crowd leaves the room. Miller said he would do this.

Observatory John Miller raised the question of repairs to the observatory roof. Gene Ramsey suggested that he get an estimate from a contractor that did satisfactory work on his house. He will get an estimate from the contractor. A discussion ensued concerning the purchase of a new ladder for the observatory. It was agreed to purchase one with a chair and combination lock. Mike Mitrano will make the purchase. The lock at the first gate is no longer being used by the Park because some Campers, whose presence was not known, may have been locked out of the park. A discussion was held concerning our efforts to put a small sign on the post at the campground. Gene said the Parks Department has now put a hold on all maintenance costs. We may be able to lean a sign up against the post saying "authorized vehicles only". Gene stated that there are definite rules and regulations concerning the type of signs they would permit. Mike Mitrano pointed out that our observatory is now on a map of the area that the Parks Department put out. So, we should be able to point the way to it with a sign of our own. He indicated that he made a contact with someone in the Department who was helpful in getting a copy of our lease with the State and this person could possibly be of assistance in our putting up a sign. A discussion was held concerning the field around the observatory and how to level and maintain it. Mike Mitrano will contact the landscaper to get a quote for "fluffing up and removing the stumps and leveling the area. Do we want someone to "site-grade" the area for a future concrete pad? He will get an estimate for "stump-grinding" and leveling.

Mike Mitrano and Ludy D'Angelo provided checks and applications for new and renewing members. Treasurer Mitrano said that we are close to the membership level of this time, last year A discussion was held concerning the membership roster and when to drop off those members who have not renewed. Mitrano stated that he sent out his annual letter about a week ago and expected to get more positive results. In a week or two, those who have not paid will be removed and added back in after they have paid. After that, those who have not paid their dues will be removed from the roster. Secretary Kane stated that he could create a database for the webmaster that would facilitate maintaining the roster and sending out the Sidereal Times.

Outreach Chair Jeff Bernardis gave a run down of the upcoming events.

A discussion was held concerning new key holder training. New member John Giles wants to be a trainee.

A scout leader was interested in utilizing the AAAP as part of an Eagle Scout training program. He contacted Ron Mittelstaedt who is the point person. Mike Mitrano described some of the typical projects that might be involved.

Gene Ramsey recommended that we take advantage of the three objects that Galileo concentrated on with his telescope: the Moon, Jupiter and Venus and that we advertise these events when they are visible on an open house evening. John Miller pointed out the success we had in Princeton and that we should repeat this event.

Larry Kane, Secretary

Treasurer's Report

A reminder letter to members who had not yet renewed has resulted in a number of payments. About 88 members have paid for the current fiscal year, roughly equaling the number at this point last year. Fiscal year to date revenue from all sources including StarQuest is \$5,947.

Expenses have remained under budget, but are expected to increase in when needed work is done on the Simpson observatory.

The Association's year-to-date surplus is \$3,027. Its cumulative surplus is \$17,970.

Michael Mitrano, Treasurer

From the Program Chair



On February 10th, our guest speaker will be Dr. Gino Segre', professor emeritus in the Department of Physics and Astronomy at the University of Pennsylvania. His talk will be based on his current book "Faust in Copenhagen—The Struggle for the Soul of Physics." About Bohr's Institute and the beginnings of quantum mechanics. There will be a book signing of the book at the

conclusion of his lecture.

Dr. Segre' has been a visiting professor at M.I.T and at Oxford University as well as a visiting Fellow at CERN (*Conseil Européen pour la Recherche Nucléaire*) and the University of California. He is the author of over 100 papers in his field, several popular articles and two books for the general public.

Well known in high energy-particle theoretical physics and in astrophysics, Gino has received awards from the National Science Foundation, the Alfred P. Sloan Foundation, the John S. Guggenheim Foundation, the John D. Rockefeller Foundation, the Liguria Foundation and the U.S. Department of Energy.

Please join us in Peyton Hall on February 10th. Prior to the meeting, as always, there will be a pre-meeting dinner at Sotto's Restaurant. Please contact me to reserve a spot and as always send any comments and suggestions to me at

Last month we had Dr. Ken Kremer who gave a wonderful presentation on the Phoenix Lander and of the Mars rovers on the 5th anniversary of their mission, which originally was to last only 90 days. Complete with commemorative 3-D glasses. We had an almost

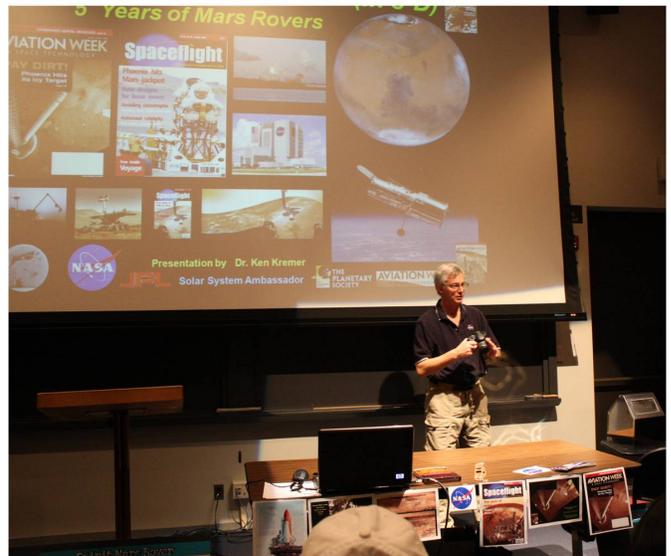
packed house with at least 90 in attendance. Thanks again to Ken for a great presentation.



The audience wearing 3D glasses for the presentation.



Up-close and 3D!



AAAP member Dr. Ken Kremer giving his lecture.

Ludovico D'Angelo, Program Chair

Community Outreach

As of this writing, we are still waiting to conduct our first outreach event of the year. That doesn't mean, however, that we do not have events on the horizon. The earlier events that were cancelled due to weather are now starting to be rescheduled. Add to that the other

regulars that we support, and our calendar is starting to fill up. We currently have the following on our schedule:

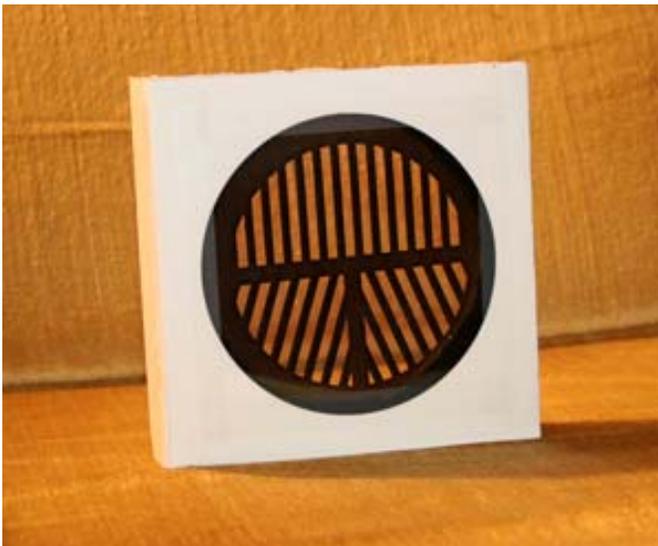
- Thursday February 19 (rain date 2/20) starting at 7:00 at Riverside Elementary School in Princeton.
- Thursday February 26 (rain date March 3) – Stuart Country Day School – I am trying to pinpoint a time.
- Friday March 20th (date is tentative) at Allentown Elementary School.
- Saturday March 28, 2009 – Plainsboro Township will be participating in the WWF’s International Earth Hour. Although this is an all day event, they are only looking for us to be involved after dark (tentatively set to begin at 8:00pm).
- And finally, Saturday April 25th is Super Science Day at the Trenton State Museum. This is a daytime solar observing event.

If you want to sign up for any of these events, please contact me at

Jeff Bernardis, Outreach Coordinator

Picture This—Focusing Mask for DSLR Cameras

For this month I thought I would write about how I focus my DSLR camera when imaging through my scope. Many of you may have heard of Hartman masks, string across the aperture or knife edge focusing mechanisms, but recently there is a new kid on the block. Using the same technique of diffraction spikes a new mask is making the rounds called a Bahtinov mask. Its creator, Pavel Bahtinov, has come up with a new slit pattern which makes focusing your camera a snap (*see mask picture below*).



Online there is a site, <http://astrojargon.net/maskgen.aspx>, where you can input the parameters for your particular scope and it will generate a vector file of the mask. You will need to load this file into a vector reading program like this one, <http://www.inkscape.org/download/?lang=en>, to be able to print it out to a printer. Once you have printed out the mask and have it mounted to a stiffer material like thin cardboard, you will need to trim away the slots and then mount it over your scopes aperture (*See scope mask picture below*).



I took the easy way out and printed it to a transparency which is much easier and works just as well. Once you have it mounted onto your scope, point it to a bright star and adjust focus to get the scope near focus through the viewfinder and take a test shot of a few seconds. The test shot will look something like a star with six spikes below.



Notice how the center spikes are a bit high or low depending on which side of focus you are on and not centered between the diagonal spikes. Now the goal is to adjust your focus until the side spikes are right in between the diagonal as shown below.



Once this is accomplished remove the mask and your camera is focused and is ready to be slewed to your targets for an evening of imaging.

Brian Van Liew

20 Years Ago In Sidereal Times...

SIDEREAL TIMES

Newsletter of the Amateur Astronomers Association of Princeton, Inc.

Director: Jay Albert

Editor: Chip Yuill

FEBRUARY, 1989

FROM THE DIRECTOR

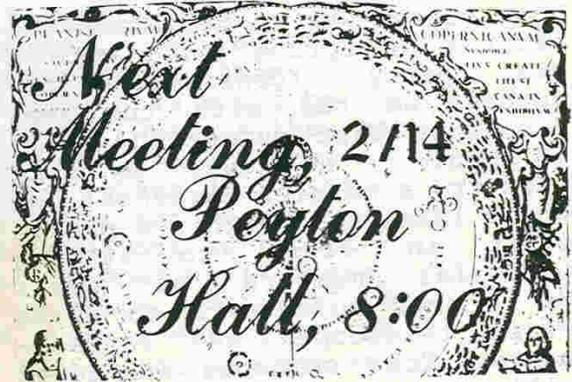
Chip Yuill, who has done a superb job as editor of Sidereal Times, has complained loudly and often that we need more contributions to our newsletter. Of course he's right, but how do we stimulate a response?

After pondering this awhile, I came up with nothing. Then I went to the mailbox and found the latest issue of Deep Sky magazine and Belegeuse, the newsletter of the National Deep Sky Observers' Society (NDSOS). I then realized that both of these publications are made up of the voluntary contributions of amateurs, including yours truly on infrequent occasions. A lot of the submissions, particularly in Belegeuse, are suggested by calls for observations of particular objects.

Perhaps you folks need something specific to get those juices flowing? That's reasonable. O.K., please try this one: the open cluster Stock (St) 23 in Camelopardalis. I recently sketched it in response to a request from another NDSOS member. St 23 is marked on Tirion chart 1 in the western part of Camelopardalis. It is large and bright, easily visible in an 11x80 finder. It's sparse cluster of some 25 stars, so it will be easy to sketch, even for

scopes without a motor drive. Yet it is an interesting object with a box shape, a couple of double stars and an assortment of internal patterns. It should be an easy object for large or small scopes and will get you out of the Messier rut. We'll run as many sketches in Sidereal Times as we can, perhaps over a period of a few months. You might even try photographing it.

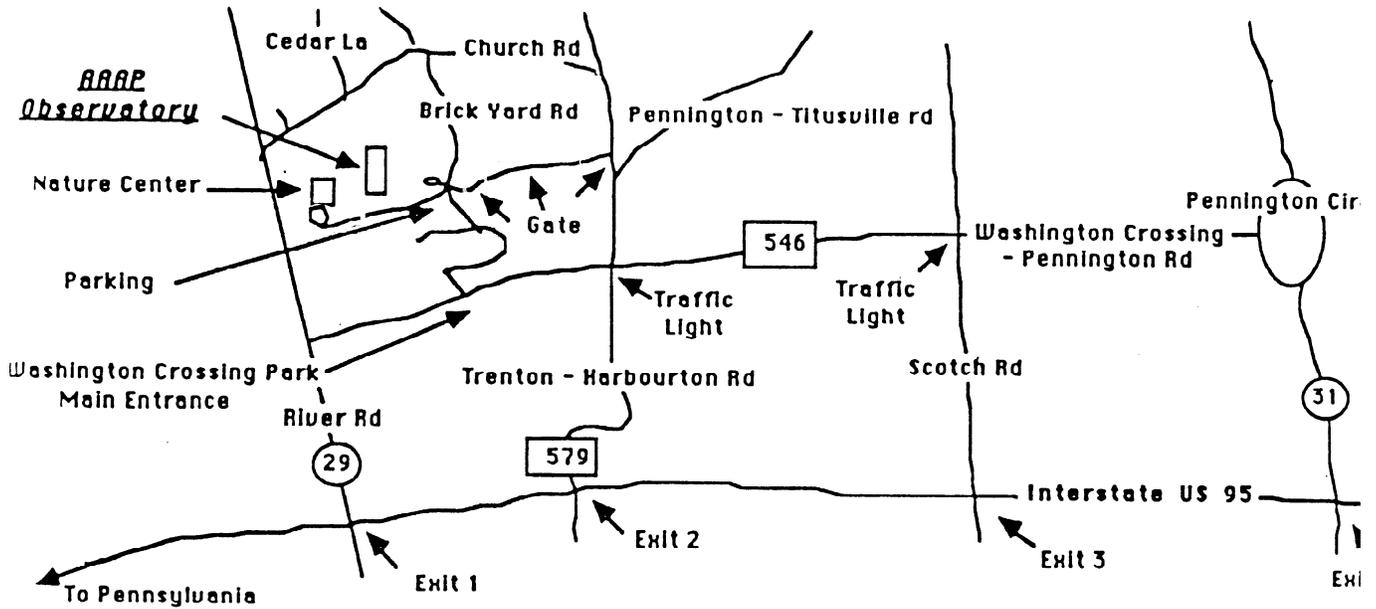
How about it? If we can get this exchange of observations started, I'll try to expand it and keep it going.



AAAP CALENDAR

Tues. 2/14/89 - Meeting at 8:00 pm in Peyton Hall. Prof. Edwin Turner on "Gravitational lenses".

Tues. 3/14/89 - Meeting at 8:00 pm. Speaker to be announced in March issue of Sidereal Times.



The best way to get to the observatory is to take Interstate 95 South towards Pennsylvania. Then take Scotch road at Exit 3 and proceed north (this amounts to right). Then, at the third traffic light take a left onto the Washington Crossing-Pennington road (County Route 546). Take this road to the first traffic light and take a right onto Trenton-Harbourton road (County Route 579). Take this road to the first driveway on the left, this is the Phillips Farm/Soccer Field entrance to the park. There is a series of three gates with club combination locks. If the gates are not open, you will need the lock combination to open the gate or be accompanied by a Keyholder member. The Simpson (AAAP) Observatory's phone number is (609) 737-2575.

See us on the Web: www.princetonastronomy.org

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