

SIDEREAL TIMES

The Official Publication of the
Amateur Astronomers Association of Princeton

Director:
Rex Parker

Treasurer:
Ron Mittlestaedt

Program Chairman:
Michele Novatski

Assistant Director:
John Miller

Secretary:
Mark Jaworsky

Editor:
Victor Belanger

Volume 33

November 2004

Number 10

From the Director

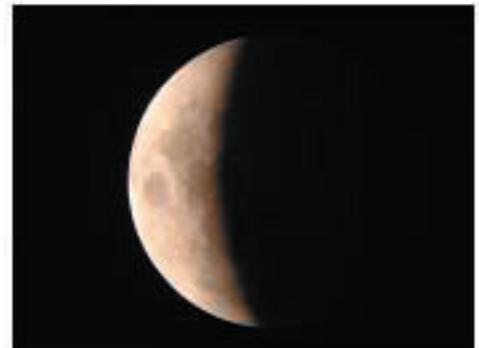
Nov. 9 AAAP meeting (8:00 Peyton Hall).

The excellence in astronomy lecture series continues this month with a presentation by Dr Michael Strauss of Princeton Univ. Dept of Astrophysics. Dr Strauss has been one of the leading scientists behind the Sloan Digital Sky Survey (SDSS) project, and will be talking about some of the data generated via SDSS and elsewhere which is driving a deeper understanding of quasars and their place in the evolution of the universe. He will present "Teenage Universe—the Most Distant Quasars Known". For more information please see Program Chair Michele Novatsky's article in this edition.

Lunar Eclipse. Could a better stage be imagined to conclude the Boston Red Sox miracle year? As the momentous final game of the World Series was played on Oct 27, millions of people witnessed the progression of a lunar eclipse. The game ended with the eclipse still in totality, leaving many to ponder the significance of this "coincidence".

Lunar eclipses throughout the ages have been seen as omens, as portents of major events to come. The ancient Greeks first inferred that the earth was round from observing eclipses of the moon. While we know today that eclipses derive from cycles of the lunar orbit dictated by the laws of gravity and conservation of momentum, this does not detract from the beauty and awe that an eclipse can evoke. It was with just such a mood that I captured these images of the Oct 27 eclipse from Titusville, despite a thick and moving cloud layer. The pictures were taken with a digital camera by eyepiece projection with a 3 inch refractor (26 mm ocular with 600 mm FL telescope).

WC Observatory and other AAAP events. We had a great turnout and wonderful weather on Oct 23 for the Annual Fall Picnic held



in Washington Crossing Park. The food was great, especially the desserts, and it was a fine chance to socialize with fellow astronomers and families! With darkfall the group migrated to the Observatory and a brief but intense observing session ensued until clouds set in around 9:00. Thanks to **Michele Novatski** and **Gene Ramsey** for organizing the picnic, and to those contributing to this event, with a special nod to those who brought their telescopes out!

A productive work session was held Oct 30 at the Observatory.

(Director, continued on page 2)

Annual dues deadline is now for all members.

Please pay \$40 to AAAP,

Simpson Observatory (609) 737-2575

Minutes of the
General Membership Meeting
October 12, 2004

Director Rex Parker called the meeting to order at 8:05 PM. 53 club members, guests and general public were in attendance. While some technical difficulties with the AV equipment were being sorted out, Rex presented some club highlights and conducted some club business.

The topics covered were:

Rex mentioned that member Chuck Henry had drafted a digest of his notes from Ed Witten's presentation in September. All interested members can request a copy of the digest from Chuck by contacting him by email at

Rex recognized of the work of Program Chairperson Michelle Novatski in securing a program slate for the year and brief mention of the upcoming programs: November – Michael Strauss speaking on quasars; December – Michael Carr speaking on designing CCD hardware for the Sloan Digital Sky Survey; February – Michael Laine speaking on the Space Elevator.

Rex reminded the membership that Club dues are due. The AAAP went to a once a year dues system of \$40 per annum and October is the due date. Dues are either payable to Membership Chairperson Jane Lanahan in person at the meeting or can be mailed to Jane at:

Rex recognized the new members in the audience and asked the guests and general public who are not members to check the club's website for information about the club's activities and membership opportunities or sign up for information on the clipboard or to speak to Membership Chairperson Jane Lanahan in person.

Rex gave some highlights of the clubs activities in October. These include:

The AAAP fall club picnic is to occur at 3:30 PM on Saturday Oct 23rd at the pavilion at the Interpretive Center in Washington Crossing State Park, RSVP to member Michelle Novatski at

The picnic will last until dark with observing at the club observatory afterwards. Rex also asked members to bring scopes for the observing session.

Observatory Friday public nights will run through the end of October.

A lunar eclipse is to occur on the evening of October 27th and that club members may meet at the Washington Crossing State Park soccer fields to observe.

Rex recognized the efforts of Gene Ramsey, Brian Van Liew, John Miller and Ron Mittelstaedt to repair the Paramount computerized mount for the C-14 and the phone, both of which suffered lighting damage from late September storms. Rex also reported that a new computer has been installed at the observatory. Washington Crossing Observatory Chairman Gene Ramsey reported that an electrical plug for the computer and monitor were installed on the desktop and that the plugs to the computer and monitor should

be pulled after use to prevent future lightning damage. Gene also reported that a workday at the observatory is scheduled for October 30th between 10:00 AM and 2:00 PM to install gutters and potentially a drainage pipe beneath the driveway. Rex also reported that the electrical connection to the declination motor on the G-11 mount for the refractor was broken and that repairs were being looked into.

Rex mentioned that member Ken Kremer is organizing a presentation at the Lawrence Library on Saturday November 13th between 11:30 AM and 3:00 PM on "Exploring Mars Saturn and Beyond". Ken will give a brief overview of the presentation as a 10-minute member talk at the November meeting.

Program Chair Michelle Novatski then introduced the evening's keynote speaker, Mr. George Bunk of Lockheed Martin Corporation. Although the technical AV problems were unable to be resolved and prevented showing slides, Mr. Bunk gave an excellent, anecdotal, real-life experience account of being a systems integration engineer on the payloads for the Space Shuttle Astro-1, and Tethered Satellite missions and also developing Space Station modules. The talk was very interactive with numerous opportunities to ask questions and very well received by the attendees.

Due to the delay for technical matters in getting the program started and the fact that business matters were covered prior to the evening's presentation the business portion of the meeting was cancelled and the meeting was adjourned at 9:40 PM.

Respectfully submitted,
Markian S. Jaworsky, Secretary

(Director, continued from page 1)

On behalf of the club, I extend a big **thanks** to the members who participated with Observatory Co-chairs **Gene Ramsey** and **Brian van Liew** in this work session: **Bryan Hubbard, Keith Jennings, Jane Lanahan, Pavel Studenkov, Ludy D'Angelo, Ron Mittelstaedt, Saul Moroz, Larry Kane, and John Miller.** Improvements include the installation of high quality seamless gutters to direct the flow of water away from the foundation, hoping to fix the frost heaving problem we have experienced in recent winters. The facility's interior was scraped and repainted flat black, the roof drive chain was lubed, and all locks were winterized. A new RA-drive motor and machined aluminum motor covers were installed in the Losmandy G11 equatorial mount for the 61/4 Hastings refractor, which is now operating normally.

The 2004 public observing sessions have been a real hit with hundreds of children and adults in attendance over the months. The public sessions are now over for the year, but the Observatory will remain available to Keyholders throughout the year, and all members are welcome to come out to observe with a Keyholder present by calling and making arrangements.

Dark Skies! -- Rex

Deadline for the
December Issue of Sidereal Times
November 26, 2004

Project Astro Nova Eclipse Party

As part of my Project Astro Nova Partnership that I have with my wife Cindy, who teaches Astronomy at West Windsor-Plainsboro High School South Campus in Princeton Junction, NJ I hosted an "Eclipse Party" during the recent Total Lunar Eclipse. Given the recent spate of nothing but gray skies, I was expecting that this event would be clouded out forcing us to wait until 2007 as a cloud/rain date.

Not to be disappointed, I woke up the morning of the eclipse to totally gray skies. However the forecast did say we would have clearing by mid afternoon and have crystal clear skies by the time the moon entered the penumbra. So I went to work very hopeful and kept monitoring the satellite loops as the day progressed. At lunchtime it was still cloudy and no evidence of clearing was to be seen. Miraculously at about 2PM (right on the forecast schedule) the clouds began to dissipate and something called the Sun (whatever that is) started to break through the clouds. By about 4 PM it had cleared sufficiently enough and a final check of the satellite loop showed that we would have a few cloud bands pushing through but nothing solid. Therefore we made the decision to proceed and not postpone the party until 2007.

I arrived about 7:30 to set up my 10" SCT and put my 4" SCT piggyback on top to which I attached my 35 mm SLR with which I hoped to take images. The skies although were broken overcast had the annoying habit of being clear where the moon wasn't and the moon was only clear for short periods. (Unbeknownst to me an upper air disturbance formed over central Pennsylvania and kept funneling cloud band after cloud band over central New Jersey). Fortunately the clouds were thin enough so that the moon could be seen through then but looked like they would interfere with imaging.

Starting about 8:30 about 60 kids parents and siblings from both the south and north campuses' four astronomy sections eventually showed up for the eclipse party. Also present besides my wife and my elf were Barry Zimmerman (north's astronomy teacher), his Project Astro Nova partner AAAP member Manick Rajendran, and north's former astronomy teacher Carolyn Soohoo.

We had decent views of the penumbral and partial phases. Then the clouds really started to interfere with the remainder of the partial phases and with totality. Finally at about mid eclipse it got completely socked in. Packed up then and came home. I tried to take images of the various stages even though the moon was spending less and less time in the more and more fleeting clear spots. One image I successfully took is shown on the right.

Of course when I got out of the car there was the moon in its partial phases in a clear slot. Furthermore as I was walking my dog just before sunrise the next morning there were nice pristine crystal



clear skies as forecast (about six hours too late) and full setting moon. At least we saw something...

Eventually (I hope) Clear skies,
Mark Jaworsky

Treasurers Report

Since my responsibilities have been reduced, thanks to Jane Lanahan, I only have to report on the Treasury Balance, not the membership. The balance is \$xxxx.17. That's all I have to report, except the if you haven't sent in your annual dues of \$40, please sent it soon to Jane.

Ron Mittelstaedt

From the Editor

October 27's Lunar Eclipse proved to be a great diversion for commercials while watching television instead of raiding the refrigerator for snacks. Kaye and I would run out with the binoculars and observe the progress of the Earth's shadow. The thin broken layer of clouds were annoying as they drifted across our view but did not cause the beauty of the event to escape our grasp. And then on the 29th, Mark Jaworsky's digital photos of it appeared in my email for which I will be grateful in coming years when I go back and view them again and again.

We are starting to receive many more letters to the editor for which I am quite grateful. They make a wonderful addition to the Sidereal Times and also reinforce that this newsletter belongs to the membership. Keep the letters coming and I will be glad to print them. One thing that would be very helpful though when sending email would be to begin the subject line with the letters, "AAAP." I belong to quite a few organizations and though I easily recognize the names of my frequent correspondents, once in a while an unfamiliar one will wind up in with the many spams that get deleted. AAAP in the beginning of the subject line will guarantee my attention and also help me sort my mail.

Letters to the Editor

Notes On Witten's Talk Available I want to congratulate the Program Chairman for inviting Edward Witten to talk to our club. Witten is a leader in superstring theory and one of the world's most eminent theoretical physicists. He gave a splendid talk. He has the rare ability to convey the essence of a physical idea in a sentence or two. I have typed up notes that I took during the talk. In some places, I had to fill in what I thought he said, so there might be some inaccuracies. They are available as an e-mail attachment in MSWord.

If you want them, send me a request by e-mail to

Chuck Henry

Solar System Model Here is a web page on how to build a solar system model. I thought you and your astronomy students might enjoy it. http://humane.sourceforge.net/pictures/solar_system.html

The author, Jef Raskin, was my officemate in grad school. He is an eccentric genius with an incredible range of interests. Check out his curriculum vita. It will blow you away.

(Letters, continued on page 4)

(Letters, continued from page 3)

Project Astro Nova My first Project Astro Nova partner teacher, Lynn Barberi recently contacted me with a public outreach opportunity. Lynn is now the principal of Mill Lake School, 115 Monmouth Road, Monroe Township, New Jersey 08831. She is happy to report that her interest in space has not waned. She received a Geraldine R. Dodge Foundation Grant this past summer to visit the Kennedy Space Center and present an Astronomy Night (rain or shine) for the 175 Second Grade students at Mill Lake School on November 18, 2004. Would any club members consider volunteering their time to have a sky veiwing? There are already 3 amateur astronomers who have already agreed to come and they would love to have others in the club join them. The event will be held at Mill Lake from 6 to 8 p.m. They have 5 rooms of activities including the Star Lab. They also have telescopes that we purchased, but unfortunately, no one who has yet mastered their use.

Lynn would be thrilled with any help the club can provide. The more the merrier! The school web site can be found at <http://www.monroe.k12.nj.us/> www.monroe.k12.nj.us,

click on Mill Lake School, where directions can be found. If anyone has any interest please contact me at <mailto:mjaworsky@celgene.com> <mjaworsky@celgene.com> or contact Lynn at

Regards,
Mark Jaworsky

Lawrence Public Library Program “Exploring Mars, Saturn and Beyond,” by Ken Kremer of the Planetary Society and AAAP.

Saturday, November 13, 2004 11:30 AM to 3 PM

Location: Lawrence Public Library

Route 1 and Darrah Lane, Lawrenceville NJ

Please call the library to register at 609-989-6920

For: kids of all ages and adults

For more info visit the web link at <http://www.mcl.org/ys/lawysprog3.html> or contact me via email at

Brief overview will be given at November 9, AAAP monthly meeting

Ken Kremer

Visit us online: www.princetonastronomy.org

November 2004

Amateur Astronomers
Association of Princeton
PO Box 2017
Princeton, NJ 08543