

SIDEREAL TIMES

The Official Publication of the
Amateur Astronomers Association of Princeton

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Number 8

From the Director

Now we approach the end of Summer, and the beginning of another terrific season of monthly gatherings at Peyton Hall. So come one, come all to the first meeting on September 14th at 8 PM. Our Program Chair, John Church, will explain the details later in this newsletter.

Our New Jersey Starquest is also drawing near. October 8th to 10th at the Hope Conference Center as usual. I am personally looking forward to the weather cooperating this year and giving us a good weekend of observing at a relatively dark site for New Jersey. We still need volunteers to help with activities during the outing. Please contact me if you can help, or have an interesting topic to talk about. As always, we will have a raffle of various materials useful to the amateur astronomer. See the website for more details.

Last week I spent a few days at the NJ shore on some very clear nights. Taking a walk on the beach and looking up and out toward the east. Many stars and the Milky Way above, but less stars and the large din of house lights lining the west side of the dunes. Such a dichotomy, and to think that if only those houses used proper, modern, down lighting techniques, they could also enjoy a starlit ocean view. Also in our own neighborhoods, and especially in Princeton, we should be able to enjoy a nice starry night. Why not! For this area, especially, it's important to the heritage of astrophysics and space exploration that surrounds us in its history. There are many things we can do individually, but as a group we should take a stand and encourage those practices that will permit the preservation of the night sky, at least in a small way.

See you all on September 14th.

Ludovico D'Angelo, Director

STARQUEST

October 8th to 10th
Hope Conference Center

See reservation forms at the back of this issue

September Meeting

Our speaker for the September 14th kickoff meeting of the AAAP will be Dr. Joel L. Groves. The title of his talk will be "Application of Oilfield Technology for NASA Missions."

Dr. Groves is presently Manager of Research and Development of Neutron Generators and X-ray Generators at PTC/Schlumberger in Princeton Junction. His principal research areas include neutron generator technology, X-ray generator technology, and applications of neutron and X-ray generators for elemental measurements in boreholes and on planetary surfaces.

Dr. Groves has more than 35 years of research experience in university and industrial settings on fundamental physics topics and on applications of nuclear measurement techniques for oilfield and planetary surface surveys. He has held numerous positions of responsibility at Schlumberger since joining them in 1984. The author of over 30 scientific publications in nuclear physics and applications of nuclear physics techniques, he holds a Ph.D. in physics from the University of Illinois and is a member of Phi Beta Kappa and Sigma Xi.

Instrumentation developed for measurements in boreholes for the oilfield service industry experiences extreme temperatures and shocks during operation. These operating conditions are often in excess of that required for instruments sent on space missions. Consequently, NASA has used some instruments, based on oilfield technology, in spacecraft. Detectors built at the Schlumberger Princeton Technology Center (PTC) are on the Cassini and Hubble space systems. The primary scientific instrument on the NEAR Mission to the Eros asteroid was built at PTC. This presentation will discuss some of the instruments built at PTC for NASA.

There will be a “Meet the Speaker” dinner at the Triumph Brew Pub on Nassau Street at 6:00 pm before the meeting. Please contact John Church for a reservation before noon on Tuesday the 14th.

John Church, Program Chair

Publicity Chairperson Needed

The AAAP has an urgent need for a Publicity Chairperson. The duties would be to coordinate with the Program Chairman, write and submit newspaper releases (i.e. for the Princeton Packet) about the next scheduled program, and work with John Miller on program material for our website including announcements about pre-meeting dinners.

We pride ourselves on being a totally volunteer organization, with people not hesitating to step up and fill vacant positions. This is an excellent opportunity for someone who is possibly interested in future program committee work and other opportunities within the club. You are needed and will be highly valued.

Director Ludy D’Angelo will be discussing this opening at our Sept. 14th meeting. Volunteers welcome!

John Church

From the Program Chair

The program lineup for the upcoming AAAP session is shaping up. We have the following speakers and topics currently scheduled:

Sept. 14 – Joel Groves of Schlumberger Corp. (X-ray spectrometers, with particular application to detecting subsurface water on Mars).

Oct. 12 – Suzanne Staggs of Princeton University (Cosmology).

Nov. 9 – Watch this space.

Dec. 14 – Bob Vanderbei of Princeton U. and AAAP (“Sizing Up the Universe,” title of new National Geographic book co-authored with J. Richard Gott, to be in bookstores in late November). The book features many astrophotos taken from Bob’s driveway. Book signing to follow.

Jan. 11 – Ken Kremer of AAAP (“The Space Shuttle, The Space Station, and What’s Beyond for NASA”). Includes many of Ken’s photos and descriptions from personal behind-the-scenes visits to the Kennedy Space Center at Cape Canaveral.

Feb. 8 – Tentative speaker from Franklin & Marshall College, name and topic TBA.

Our springtime schedule is under construction. On June 14 we hope to have Bill Murray again with another fine planetarium show. The last one would be a tough act to follow!

John Church, Program Chair

Community Outreach

As was the case last month, not much is happening in the area of community outreach – this is always the quiet time of year. Once schools get started, I expect the requests to start coming in.

We are still looking for a volunteer to take over this position. If you are interested, please let me know and I will discuss your desire with Ludy.

Finally, if you would like to be added to the list to receive notification about outreach events, just let me know. I can be reached at 8.

Jeff Bernardis, Outreach Coordinator

Treasurer’s Report

There is no report this issue as there has been no financial activity. However, please remember that dues for the 2010/11 season are due next month. Please send your \$40.00 check to: Amateur Astronomers Association of Princeton
P.O. Box 2017
Princeton, NJ 08543

Michael Mitrano, Treasurer

**The deadline for the October ST is
Friday, October 1, 2010
Please submit articles to:
editors@princetonastronomy.org**

Observatory Repairs

Gene Ramsey, Ron Mittelstaedt, and I made temporary repairs to the north side vent at the Simpson Observatory soon after it was damaged due to an unsuccessful break-in attempt earlier this Summer. The 2 x 4 that had been nailed across the inside of the vent could not be removed by the would-be burglars, and so they gave up trying to enter the building.

Permanent repairs have now been made with the assistance of Bob Newcamp, who obtained an exact replacement vent and installed it. Gene and I secured 2 x 4's across the inside of both vents with long lag screws and also installed new steel angle channels across the vents above the 2 x 4's, again with long lag screws. Entry through the vents should now be virtually impossible. Total cost of the repairs was \$100.

At the September meeting, we will be discussing upgrades to the existing alarm system, which is about 30 years old.

John Church

For Sale

I have a beautiful SV102ED F7 scope for sale. It has a sliding dew shield and a two speed focuser. The focuser can rotate around the tube and can also be removed to make this scope even more vacation friendly if desired. The mechanics and glass on this scope are in excellent condition.

Included with this scope is a set of parallax rings, a red dot finder and a carrying case. Also there is a metal cover that screws onto the dew shield. I have used this scope for visual observing and for astrophotography.

If you are interested contact me at

Brian van Liew

Atlantis Last Launch and Landing

Space Shuttle Atlantis closed out a quarter century of service to the exploration of space with a majestic return from orbit and a spectacular landing on May 26 at 8:48 AM at the Kennedy Space Center (KSC) in Florida. Commander Ken Ham initiated the de-orbit burn while circling 220 miles above Indonesia.

I attended with a press pass which allowed me exquisite eye-witness access to the landing and the May 14 launch as well as tours inside the Space Station Processing Facility for close up inspections of the orbiters payloads.

Atlantis and her six man crew descended through the atmosphere and were greeted by absolutely clear blue skies for what was her last scheduled journey to space and final touchdown on Earth. Unless President Obama approves a final additional flight, Atlantis takes her place in the history books. Shuttle Atlantis completed 32 missions, lasting 294 days, while flying 120 million miles during 4648 orbits of the Earth since her first launch in 1985.

The orbiter approached from the south and was clearly visible to myself and other spectators from our bulls-eye perch directly at the Shuttle Landing Strip at KSC. She suddenly appeared as a faint speck, like a daytime star, that rapidly grew in size and form for some two minutes prior to landing at runway 33.

The STS 132 mission lasted 11 days and 18 hours from liftoff to landing during a journey of 4.9 million miles and 186 orbits about the earth. The primary goal of STS 132 was delivery of the Russian built Rassvet science module and other crucial spare parts to the International Space Station as a hedge against the looming retirement of NASA's three Orbiter fleet in early 2011.

NASA has already purchased all the hardware needed to fly one more shuttle mission. But NASA requires money and approval from the Obama Administration and the Congress to officially add the flight to the manifest which would be designated as STS 135.

Check out all my STS 132 Launch and Landing stories at the Planetary Society and NASA Watch/Spaceref:
<http://www.planetary.org/blog/article/00002500/>
<http://www.spaceref.com/news/viewnews.html?id=1395>

Astronomy Outreach

I'll be speaking at the AAAP January 2011 monthly meeting about my up close Shuttle experiences at KSC and at NASA's Michoud Assembly Facility to see NASA's new Orion manned capsule. Hear a preview at my upcoming talks:

UACNJ Astronomy Symposium: Hope NJ, Sep 25, Sat, 8 PM. "The Space Shuttle, The Space Station and Whats Beyond for NASA". Website: <http://www.uacnj.org/>

Stella Della Valley Star Party & Bucks-Mont Astronomical Association (BMAA): Ottsville, PA, Oct 9, Sat, 3 PM. "The Space Shuttle, The Space Station and Whats Beyond for NASA" & "Mars Rover Update". Website: <http://www.bma2.org/Sdv.html>

Rittenhouse Astronomical Society (RAS) at the Franklin Institute: Philadelphia, PA, Oct 13, Wed, 8 PM. "The Space Shuttle, The Space Station and Whats Beyond for NASA" Website: <http://www.rittenhouseastronomicalsociety.org>

Washington Crossing State Park: Titusville NJ, Nov 21, Sun 1 PM. "6 Years of Mars Rovers and the Search for Life (in 3-D)"



STS 132 astronauts pose for a group portrait in their orange launch-and-entry suits in front of the Astrovan which will transport them to Launch Pad 39 A at KSC. From left: Mission Specialists Piers Sellers, Steve Bowen, Michael Good and Garrett Reisman; Pilot Tony Antonelli; and Commander Ken Ham. Credit: Ken Kremer



Atlantis soars to Space on 14 May 2010 carrying Russian 'Rassvet' research module to the ISS. Credit: Ken Kremer

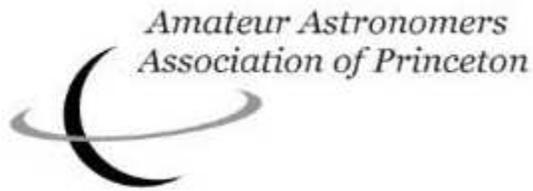


Ken Kremer and Atlantis at Launch Pad 39 A at the Kennedy Space Center. Credit: Ken Kremer



Last Touchdown of Atlantis at Kennedy Space Center! Credit: Ken Kremer

Please contact me for more info or science outreach presentations. Email: ken.kremer@rit.edu or website: www.rittenhouseastronomicalociety.org/Dr.Kremer/K.htm



**PRESENTS THE 21TH ANNUAL
JERSEY STARQUEST**

Held at the Hope Conference and Renewal Center, Hope, NJ
Beginning at 5 PM Friday, **Oct. 8th**, 2009 and running through 12 PM Sunday, **Oct. 10th**
Please note: This event will take place regardless of the weather conditions!

Featuring

Stargazing at a star-filled, dark sky location
DOZENS OF ASTRONOMICAL TELESCOPES IN OPERATION
AAAP-sponsored "Deep Sky Observing" contest
Free space available for astronomical swap meet
Heated cabin accommodations (most with private bath; first come, first served)
Ample space for camping & RV's, hot showers for all
Saturday full meals
Spectacular Raffle & Door prizes

Other Planned Activities Include

Solar Observing (H-alpha)
Astrophotography Presentations, Tutorials, and CCD Demo's
Field Trip to AAAP Observatory Facility at Jenny Jump State Park
Workshop: Learning to Use Your New Telescope

Plus

Fishing, Volleyball, Basketball, Hiking, Game room
Kayaking/canoeing (bring your own) on two lakes and nearby Pequest and Paulins Kill Rivers

Registration Fees

Camping and RV -- \$35.00 per person (\$45 after October 2), children (6-12yrs.) \$25
Bunkhouse -- \$45.00 per person (\$55 after October 2), children (6-12yrs.) \$35
Children under 6 years of age -- Free

Meals

Scrumptious Food Catered by AAAP Chefs, for Saturday ONLY
Volunteers needed to help the Chefs
Saturday brunch, and dinner: Adult -- 30.00 per person
Child (ages 6 – 12) -- \$20.00 per person; Children under 6 years of age -- Free

Please send registration form and your check or money order (payable to AAAP) to:

**Amateur Astronomers Association of Princeton
Jersey Star Quest 2009 Registration
P.O. Box 2017
Princeton, NJ 08543**

JERSEY STARQUEST REGISTRATION FORM

NAME _____

ADDRESS _____

EMAIL _____

TELEPHONE _____

CLUB _____

TOTAL NUMBER OF ADULTS IN YOUR PARTY? _____

TOTAL NUMBER OF CHILDREN (Ages 6 – 12)? _____

TOTAL NUMBER OF CHILDREN UNDER 6 YEARS OLD? _____

ACCOMMODATION PREFERENCE(S):

Note: indoor accommodations are single sex (males in one set of cabins, female in another set of cabins).

There are a few accommodations for families that do not want to be split up. This is on a first come, first serve basis.

INDOOR _____ TENT _____ RV _____

Would you like to enter into a "Deep Sky Observing" contest? _____

Will you need space to set up an astronomical swap table? _____

FEES:

(No charge for children under 6 years of age)

\$35.00 _____ PER ADULT (camping or RV)

\$45.00 _____ PER ADULT (bunkhouse)

\$25.00 _____ PER CHILD 6-12 (camping or RV)

\$35.00 _____ PER CHILD 6-12 (bunkhouse)

\$10.00 _____ (add late fee **after October 2**)

Meals (**Saturday; brunch, and dinner**)

Meals (Adult) \$30.00 _____

Meals (Child, ages 6 – 12) \$20.00 _____

TOTAL ENCLOSED _____

Please send completed registration form and your check or money order (payable to AAAP) to:

Amateur Astronomers Association of Princeton

Jersey Star Quest 2009 Registration

P.O. Box 2017

Princeton, NJ 08543

IMPORTANT – We may not be able to accommodate meal requests for registrations received after October 2.

Please Note – Pets are not permitted at the site.

This event will be held regardless of the weather conditions.

Sorry -- No Refund for Cancellations received after October 2

JERSEY STARQUEST

Hope Conference & Renewal Center: <http://www.camphope.org/> 908-459-4435

Directions to Hope Conference & Renewal Center

Hope Center is about 3 hours from Philadelphia, 2 hours from NYC & Reading, and hour or less from Lehigh Valley. 1.5 Hours from New Brunswick

From the South & Southeast (Trenton NJ)

Take State Road 31 North from I-95 on the north side of Trenton. Follow to its end at US 46 its Butzville, NJ. Turn left (west) on US 46 and at the end of the next light go right (north) onto State Route 519 to the flashing light in Hope. FOLLOW "From Downtown Hope" below

From the Southwest (Phillipsburg, NJ)

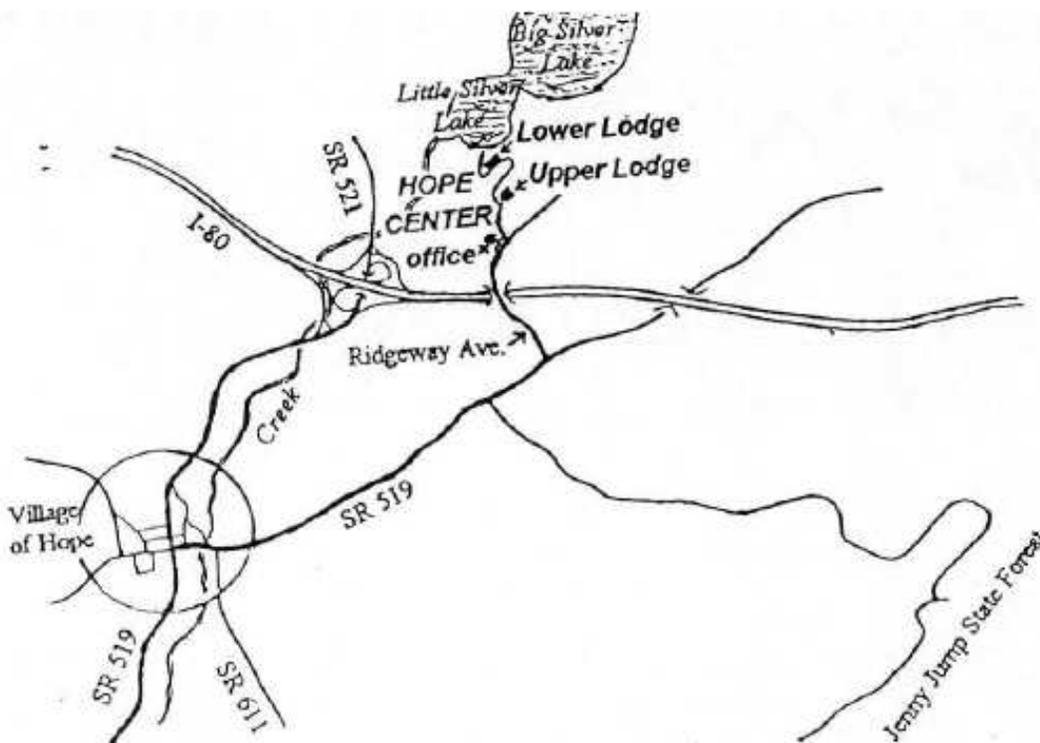
Take State Route 519 North, off of US 57 on the east side of Phillipsburg. Follow 519 North, across US 46 (near Belvidere & Butzville, NJ) to "downtown" Hope NJ marked by a flashing red light. Turn right at this light, continuing on 519 North. FOLLOW "From Downtown Hope" below

From the North, Northwest & East (I-80)

Take I-80 to Exit 12 in NJ. Exit onto State Road 521 south to Hope. In about two minutes arrive in downtown Hope, marked by a flashing red light. Turn left at this light onto St Route 519 north. FOLLOW "From Downtown Hope" below

From Downtown Hope

Take State Route 519 North for 1.3 miles from the flashing red light (if you go under I-80, you've gone too far). Turn left onto Ridgeway Ave (you can only turn left) and go .5 mile, passing over I-80. Turn left at the "HOPE CENTER" sign onto the entrance road. The Center office is in the house immediately before the entrance road



PLEASE NOTE: NO WHITE LIGHTS AFTER DUSK. IF YOU ARRIVE AFTER DUSK, PLEASE MAKE PROVISIONS TO EXTINGUISH YOUR HEADLIGHTS.
PLEASE NOTE: NO GREEN LASER POINTERS

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United Astronomy Clubs of NJ Astronomy Symposium

September 24, 25, and 26.

Featured speakers and events will be located at the Jenny Jump State Forest Observatory on all three days, with special lectures at Centenary College on the 25th.

The symposium will feature:

- Lectures by noted experts in a variety of astronomy topics
- Hands-on observing sessions guided by UACNJ Observers using UACNJ equipment or your own.
- Demonstrations of solar and radio telescopes
- Meteorite display
- Geologist-guided walk exploring the terrain of Jenny Jump State Forest Tours of UACNJ facilities.
- Swap table Saturday noon-3 PM and 5-8 PM Sunday noon-5PM
- Telescope display Saturday and Sunday 12:30-4:00 PM

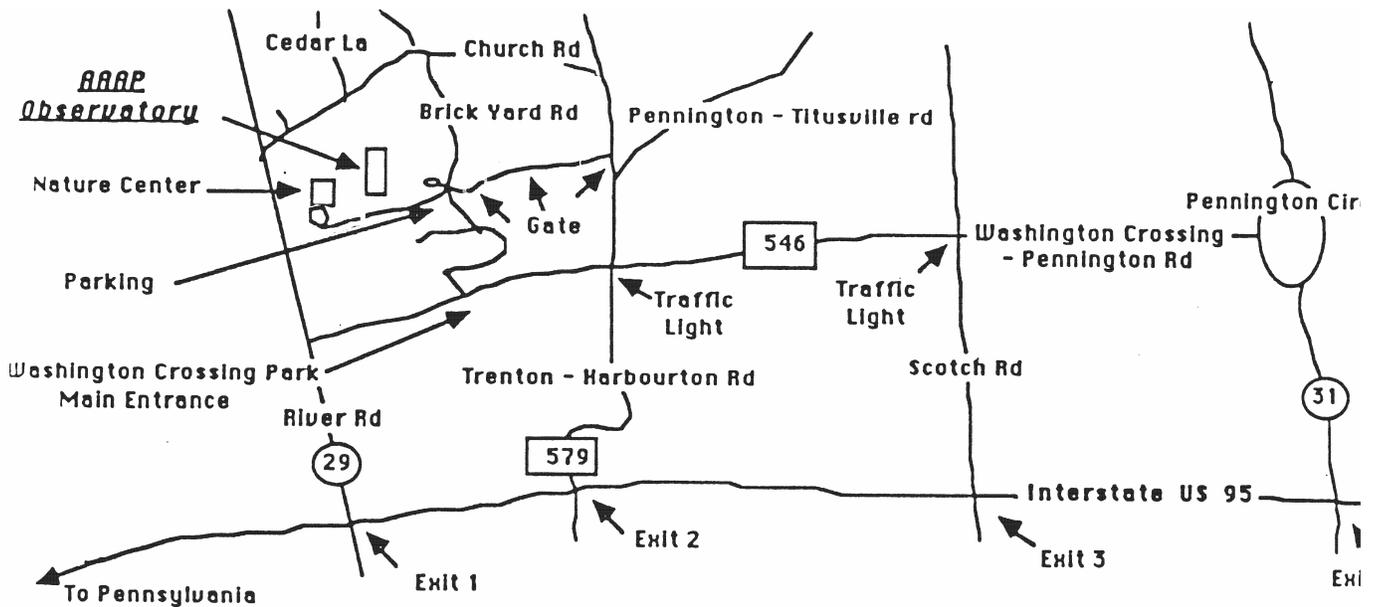
Food will be available for purchase at the UACNJ facility in Jenny Jump State Forest from 11 AM to 7 PM on Saturday and Sunday.

Star parties, Friday, Saturday, and Sunday evenings, weather permitting.

Registration form is available at: <http://uacnj.org/pages/2010-symposium-reg-form.pdf>

For more detailed information visit: <http://uacnj.org/pages/2010-symposium-flyer.pdf>

Directions to Simpson Observatory



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 (right). At the third traffic light, make a left onto the Washington Crossing-Pennington Road (County Route 546). Take CR546 to the first traffic light and make a right onto Trenton-Harbourton Road (County Route 579). Take CR579 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.princetonastrometry.org

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

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