

# SIDEREAL TIMES

The Official Publication of the  
Amateur Astronomers Association of Princeton

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*Rex Parker*

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*Ken Kremer*

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*Ludy D'Angelo*

**Editors**

*Bryan Hubbard and Ira Polans*

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## From the Director

**AAAP Meeting April 10 (8:00 Peyton Hall).** This month our astronomical excursion returns to the hallowed halls of Peyton Hall with a presentation by **Dr. David Spergel, Dept of Astrophysical Sciences at Princeton.** David is a renowned cosmologist and astrophysicist, and has been a key investigator in the science from WMAP, the orbiting infrared telescope which generated maps of the microwave sky and helped redefine cosmology in the past few years. In his presentation at AAAP, Dr Spergel will discuss his newest project—the **Atacama Cosmology Telescope (ACT).** The ACT is a state of the art telescope facility coming on line now in the Atacama Desert in the high Andes in Chile. The ACT is designed to observe the microwave sky in multiple frequencies at high resolution and sensitivity over a large area of the sky. Using cutting edge, multiplexed, superconducting bolometer arrays as detectors, the ATC aims to extend the legacy of WMAP by developing maps of the primordial microwave background to arcminute resolution, and through gravitational lensing reveal large-scale structure and information about infrared galaxies and galaxy clusters, as well as properties of the Milky Way itself. For more information see **Program Chair Ken Kremer's** article in this issue, and go to the AAAP website for links to Dr Spergel's and the ATC sites.

**Vic Belanger, Editor Emeritus of Sidereal Times.** We've had an outstanding journalistic run with Victor Belanger as the Editor of Sidereal Times! As he notes elsewhere in this issue, Vic has passed the typewriter on to Bryan Hubbard and Ira Polans, who have ably stepped up to edit and produce S.T. I've known Vic as an avid astronomer and a force in the AAAP since the early 90s, through his many roles in the club including Director and his longstanding work as Editor. Knowing a good leader when I see one, Vic caught my attention and was one of the key people who inspired (prodded) me into stepping up to become Program Chair in the late 90's, which segued into my role as Director. Throughout his tenure, Vic's editorship of Sidereal Times has been reliable, interesting, enjoyable, and essential to me and the Board and club members. **Thank you Vic, for your outstanding contributions to the AAAP!**

## AAAP Washington Crossing Observatory Light Pollution Update.

The AAAP observatory is situated in the midst of hundreds of acres of preserved land with even larger forests to the north (Baldpate Mountain) and farms to the northeast, but development has brought outdoor light pollution to the east, south, and southwest since the observatory was built in the early 70's. One of the most offensive glare sources is located about 1.5 miles east of the observatory at the Hopewell township baseball/athletic fields near Scotch Road/Washington Crossing-Pennington Rd. The multiple field complex is illuminated at night by a large array of old-style, unshielded floodlights. Last year I had promised AAAP members that Hopewell Township would respond to our requests to change these to low glare, shielded lamps. I'm happy to report that the removal of the old and installation of the new luminaires began a few weeks ago. The photos below show the difference between the old and new shielded fixtures. The shielding is designed to cut glare above the horizontal axis by nearly 100% and are more energy efficient than the old style. This responsible action by Hopewell Twp (which funded the project) shows that solutions to light pollution issues can be found and are often "win-win" situations. Perhaps this story and others like it (see the Intl. Dark Sky Assoc, IDA, website) can help motivate others in AAAP to find solutions to local light pollution problems. Please feel free to call or send me a note if you'd like to discuss lighting issues you're wondering about in your own area.



*Old lighting fixtures at the Scotch Rd fields (left) and New anti-glare shielded luminaires (right)*

*Dark skies! — Rex*

## A Time for Farewell

After being Editor of the Sidereal Times for Over 12 years, I'm passing the baton to Bryan Hubbard and Ira Polans who have taken over as editors starting last month. I was serving my 3<sup>rd</sup> term as Director of the AAAP back in September of 1993 when I received the distressing news that John Simpson had unexpectedly died of a heart attack. John had been our Editor since the spring of 1989 and thoroughly loved that job.

One of the responsibilities of the Director is to get things done when there is nobody else around to do it and so I hurriedly put together the October issue of the newsletter and started the search for a new editor. We found one that I helped do the newsletter in November and December and he took over in January but only lasted a few more months and no new editor was forthcoming for the next 12 years.

I'm extremely happy that our new editors are not taking over under the same circumstances and wish them well. Ira has a great deal of experience in the mechanics of publishing and Bryan, having been a member of our club for some years, knows how it functions and has a good appreciation of what the Sidereal Times brings to the membership. Together they will make a great team for keeping "The Official Publication of the Amateur Astronomers Association of Princeton," moving forward and we can all look forward to new ideas and improvements that they will bring to the newsletter.

As for me, I will continue to be a member and support the club in other ways but having served 3 years as Program Chairman, 3 years as Director, 2 years as Assistant Director, and 12 years as Editor, I will take a few years off before taking on any new responsibilities. I have purchased a 42 acre tree farm in South Carolina and plan to build a hunting lodge down there and spend about half my time in the South.

*Vic Belanger*

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## Science and Public Outreach

**Mohawk Valley Astronomical Society (MVAS):** Utica, NY. On March 9 and 10 the MVAS club hosted me for a thrilling weekend of astronomy outreach. First up was a Friday evening talk on Mars to a SRO crowd of over 70 at the Municipal Center in Barneveld, who offered up great hospitality. Saturday began with my "Blast Off for Space with NASA" event at the Children's Museum in Utica, and concluded with my presentation at the MVAS annual dinner banquet on "Exploring Mars and the Search for Life (in 3-D)". All in all, I was quite gratified to find such enthusiasm for astronomy in beautiful upstate NY despite several feet of snow cover!



*Hardy Upstate New Yorkers of all ages wowed by Victoria Crater on Mars in 3-D at the Barneveld Municipal Center on March 9, 2007. Photo Credit: Chuck Higgins*



*Martian Cuisine at the MVAS Annual Dinner Banquet on March 10, 2007. Photo Credit: Chuck Higgins*



*Kids enjoy Giant 3-D Craters on Mars posters from JPL as we "Blast Off" at the Children's Museum in Utica NY on March 10. Photo Credit: Chuck Higgins*

Online pictures here: <http://www.museum4kids.net/AstronomyNASA.htm>

My upcoming astronomy talks include:

**Rittenhouse Astronomical Society (RAS) in the Franklin Institute:** Philadelphia, PA, Wed April 11, 8 PM. "Mars, Saturn, Comets and Beyond in 3-D". Website: <http://www.rittenhouseastronomicalsociety.org/>

**The Explorers Club:** NY, NY, Mon Apr 23, 7 PM. "Exploring Mars and the Search for Life (in 3-D)". Website: <http://www.explorers.org/index.php>

*Ken Kremer*

*AAAP Program/Lecture Chairman*

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On the evening of March 9, there was a star party for Upper Freehold Elementary school in Allentown. Ludy D'Angelo, Ron Mittelstaedt, and I were there. It was cold but very clear. The usual bane of these events – parking lot lights – reared its head, but we still managed to do some good viewing. There were in the neighborhood of 40 observers. Everyone liked Saturn and M42. Venus was up but rather uninteresting

On the evening of March 29, Gene Ramsey and I put on a star party for students and families of the Stuart Country Day School in Princeton. The event, which had been postponed from the previous night, was under very good conditions. There was a turnout of around 30 to 40 observers. The favorite targets were, of course, Saturn and M42,



although there was also some viewing of the Moon, M45, and various open clusters. All in all it was a very good night; we have supported Stuart in the past and hope to continue to do so.

The big outreach event of the month was the Princyclopedia, hosted by Princeton Cotsen Children's library on the Princeton Campus. This was a daytime event on Saturday 3/31. Representing the AAAP were myself, Ludy D'Angelo, Larry Kane, Gene Ramsey, and Rom Mittelstaedt. The theme of the event was Harry Potter; since one of the courses Harry studies is Astronomy, we were asked to participate. We had a few telescopes set up indoors, along with some astro images, club information, and observatory information; Ron wanted set up outside with his TV102 and a solar filter, but the clouds precluded this. We all got to wear wizard hats as part of the theme, but the highlight of the day was Ron - instead of just a wizard hat, he was also outfitted with a bright blue wizard robe. I had to snap a photograph.



*The AAAP wizards at work!*

If anyone is interested in helping out with these outreach events, please let me know at [jbernardis@princetonastronomy.org](mailto:jbernardis@princetonastronomy.org). It would be nice to have some new names involved. These events can be quite fun, as evidenced by Ron, and they are very rewarding.

*Jeff Bernardis  
Public Outreach Coordinator*

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## From the Program Chair

### *Upcoming 2007 AAAP Lecture Season*

**April 10: Professor David Spergel**, Chair of the Department of Astrophysical Sciences at Princeton University, is the keynote speaker. Dr. Spergel's talk is titled "The Atacama Cosmology Telescope: A New Tool for Astronomy" and will describe how observations of the cosmic microwave background (CMB) have played an important role in the cosmological "revolution" of the past decade. They not only give us our most detailed look into the physics of the early universe, but also have enabled us to determine the age, shape and composition of the universe.

The Atacama Cosmology Telescope (ACT), is a new microwave telescope being built in the Atacama desert of Chile. By combining ACT observations with optical, ultraviolet and infrared observations, we will use the CMB to probe not only the "initial conditions" for galaxy formation but the process of the growth and assembly of galaxies and large scale structure.

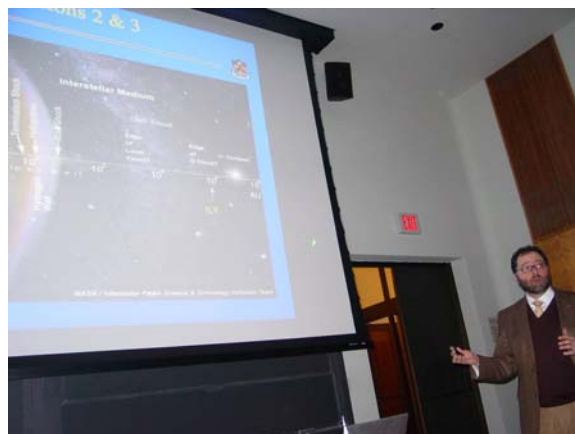
Spergel is the Charles Young Professor of Astronomy at the Department of Astrophysical Sciences and received his PhD from Harvard. He is a theoretical astrophysicist who has worked on a wide range of fields in astronomy including the search for extra-solar planets, the structure of the Milky Way and cosmology. Spergel is a member of the Wilkinson Microwave Anisotropy Probe (WMAP) science team and the ACT science team and Chair of the Astrophysics Subcommittee of the NASA Advisory Council. He is a MacArthur Fellow and has been cited by Time Magazine as "one of America's top scientists".

**May 8: Brother Guy J. Consolmagno** from the Vatican Observatory will present "God, Astronomy and the Search for Elegance".

**June 12: Dr. Tony Del Genio** from NASA Goddard Institute for Space Studies will present "*The Cassini Mission to Saturn*". He is a member of the Cassini imaging team.

March 2007 was an extra special month and the AAAP sponsored 2 exceptional speakers.

On March 13, **Professor Edgar Choueiri**, Director of the Electric Propulsion and Plasma Dynamics Laboratory (EPPDyL) at Princeton University presented "*Plasma Propulsion and the Exploration of Space*", a scientifically entertaining talk about the history of rocketry, initial results with plasma propulsion, and applications to a proposed Titan Orbiter and beyond. These ambitious missions can only be accomplished via plasma rockets. Those who are interested can sign up for a AAAP sponsored tour of his lab in the MAE Dept by contacting me.



*Prof Choueiri discusses prospects and challenges for an interstellar probe powered by plasma rockets at March 13 AAAP meeting*

On March 30, **Fred Espenak**, world renowned Eclipse expert from NASA Goddard Spaceflight Center, presented a delightful and insightful Special Science Lecture titled *"Predicting and Chasing Solar Eclipses"* to a huge crowd in Peyton Hall on a Friday evening. He explained the celestial mechanics of eclipses and the science learned from studying the solar corona during eclipses. Through spectacular audio and video we experienced some of his high adventures from 20 eclipses expeditions including amongst tens of thousands of penguins in Antarctica and most recently in the sand dunes of Libya. He previewed the next 3 total eclipses in 2008, 2009 and 2010 and the next Solar eclipse visible from the US in 2017. Fred distributed a special bulletin on eclipses visible from Princeton. He is the webmaster of NASA's official eclipse web site ([sunearth.gsfc.nasa.gov/eclipse/](http://sunearth.gsfc.nasa.gov/eclipse/)) as well as a personal web site on eclipse photography ([www.MrEclipse.com](http://www.MrEclipse.com)) and has published several eclipse books.



March 30 AAAP Speaker Fred Espenak in Silhouette in Peyton



Giant Friday Night Crowd greets "Mr. Eclipse", Fred Espenak from NASA Goddard Spaceflight Center



Fred Espenak explains astrophotography details of the solar corona at March 30 AAAP meeting.

**Please send me any photos from any of the past or current exciting lecture evenings which you may have.** And please attend the future AAAP lectures!

Please send me your suggestions for speakers, with contact/topic information to [ken@princetonastronomy.org](mailto:ken@princetonastronomy.org)

*Ken Kremer*

*AAAP Program/Lecture Chairman*

## Treasurer's Report

The current balance stands at \$12,654.48 with expenses at \$207.29 and income at \$3.93 for March.

*Brian Van Liew*

*AAAP Treasurer*

## Minutes of the Board of Directors

*Amateur Astronomers Association of Princeton*

*March 1, 2007*

Director Rex Parker called meeting to order at 7:35 PM in Room 33 of Peyton Hall.

Officers present were *Rex Parker (Director)*, *John Miller (Assistant Director)*, *Brian VanLiew (Treasurer)*, *Ludovico D'Angelo (Secretary)*, and *Ken Kremer (Program Chair)*.

Other members present were: *John Church, Saul Moroz, Gene Ramsey, Ron Mittelstaedt, Jeff Bernardis, Larry Kane, Bill Murray, and Mike Mitrano.*

Rex started the proceedings by indicating he would move the meeting along if it went too slowly. He expressed that there were issues he was concerned about in the succession of the leadership of the club. He hopes to step down as director and hopes to see new people step into the leadership roles in the club.

John Church offered a resolution thanking Rex Parker for 6 years of service as director.

Rex asked for any ideas about the membership being involved. BrianVanLiew indicated it would be a good idea to have set meetings for observing other than the public nights. We all discussed the ways and means by which to engage the membership, or at least those interested in observing, in order to make the club more satisfying to the members.

**Succession Plan:** Discussion on the succession plan for the Board of Directors was discussed. One of the areas that need help is the Program Chair position. The bylaws state that there should be a program committee helping the program chair. Rex and others felt that by having a committee, it would help train future Program Chairpersons in that role. Ken said ideally that if there were others involved, the hope would be that they would come up with ideas and handle the arrangements for that speaker.

**Socialization:** Much discussion ensued concerning socializing the club members at the monthly meetings and the format and structure of those meetings. Everyone agreed that there should be more socialization at our monthly meetings. We may start the meetings earlier, and incorporate a social time after the speaker.

**Nominations for Board Members:** Rex will appoint a Nomination Committee Chairperson at the next club meeting on March 13<sup>th</sup>.

**Sidereal Times:** There was a discussion about Sidereal Times and the current change over from Vic Belanger to Ira Polans as editor. Ira was asked to help and he stepped up to help out in the transition. Everyone in the room was encouraged to submit article.

New member Jim Samuel will help Ken with publicity and email announcements. Eventually he may help with the web page. John Miller indicated that he had some ideas about improving the design and look of the site

**Expulsion Proceedings:** Rex started discussion on the consideration of the expulsion from the club of Ralph Marantino. Recently he had been engaged in unacceptable behavior towards other club members. Rex indicated that this was not an isolated incident and that this last time forced action by the Board to consider this procedure. Expulsion is spelled out in the by-laws. Various discussions followed about his offences. Prior to the Board meeting, Ralph had emailed Rex indicating that he had given his key back to Ron Mittelstaedt, and that he would not rejoin the club next season. The members in the room had further discussions on this situation. Gene Ramsey proposed a code of email conduct for consideration.

**The AAAP Board resolved the following:** That we would write a letter formally accepting Ralph's resignation from the club. We would return his portion of dues for the remainder of this season, and that we would also notify him that we unanimously agreed that this is a permanent removal from the club and he would not be allowed to rejoin at any time in the future.

**A motion to move public nights:** After much discussion, the following motion was put forward by Ludy D'Angelo: *That the 2007 observatory open houses be every Friday night of the months April to the end of October.* The motion was seconded and the vote of the Board was unanimous. The observatory chair and co-chairs will arrange this to happen starting April 6<sup>th</sup>, 2007.

Rex would like to see new keyholders come onboard this year. The training plans for keyholders would go forward. The more frequent open houses will hopefully spur this process.

**Observatory:** March 17<sup>th</sup> will be a training session on the new software and to have a Messier Marathon at the WC observatory. Keyholders need to be trained in the differences between the old and new versions of The Sky software.

**Discussion on signage at Washington Crossing Park was reviewed with Gene Ramsey.** Saul Moroz offered a counterweight for the 61/4 refractor. This had been previously discussed in order to balance the tube a better than what we have now. Ron Mittelstaedt requested that the club spend \$300 to purchase a feather touch Crawford type focuser for the C-14 at the observatory. This will help our ability for members and the public to be able to focus objects.

**Rex proposed the following motion:** *That the club expend up to \$300 to purchase the Feather Touch Focuser from Starlight Instruments for the C-14.* John Miller seconded. The vote of the Board was unanimous.

**Programs:** Ken Kremer reported that the special lecture held on February 27<sup>th</sup> was well attended with over 60 people. At least half being club members. He read a letter from Peter Rona (prior guest speaker who had attended the lecture) commending Ken on his excellent AAAP programs. The next special speaker will be Fred Espenack on March 30<sup>th</sup>. The rest of the roster is full. Ken

felt that it was premature to start looking for speakers for the 2007-2008.

Rex acknowledged Ludy D'Angelo's work on publishing the outline budget. Ludy reminded everyone that there were 2 versions, one with and one without Starquest.

**Starquest:** We will need to start Starquest planning in the middle of summer. This is a shift from last year since the date has changed to October. More planning and discussion will be followed up in the next few meetings.

Picnic and gathering ideas for the summer were discussed briefly. Jeff Bernardis asked about a banner for a club display for the next outreach; that idea is being worked on by John Miller.

Ludy D'Angelo will pass on the idea to Linda Papetti in order to have some goodies available at the next meeting after the break in order to have a social time for the members.

Meeting was adjourned at 10:15 PM. *Audio of this meeting is available from the Secretary.*

Ludovico D'Angelo  
Secretary

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## Minutes of the General Meeting

### *Amateur Astronomers Association of Princeton*

### *March 13, 2007*

The meeting started at 8 PM.

Rex Parker (Director) welcomed new members and guests, and announced that refreshments would be provided during the break after the speaker talk. He also reminded everyone that the open houses at the observatory would be every Friday night during the spring and summer starting April 6. He also mentioned a software program called "Where is M13" which was interesting in its ability to locate the positions of objects within the galaxy.

Rex Parker nominated John Church to be the head of the Nomination Committee for the next slate of officers, which will be announced at the April regular meeting.

Ken Kremer (Program Chair) announced changes to the program schedule. He introduced tonight's speaker Edgar Choueiri, who gave a talk about space propulsion.

After the break and refreshments, Rex showed slides of his trip to Mt. Palomar.

Observatory items: The plan for cutting brush at Washington Crossing around the observatory was approved by the park. Gene Ramsey discussed some aspects of the signs that we would like to put up at the park. He will get some costs together and make a proposal.

UACNJ will be having a meeting for member clubs; they would like to have a representative from the club attend. Rex Parker may go. Discussion followed about the use of the observatory at Jenny Jump. Some of the concerns expressed were how we could access the scope without having too much trouble doing it.

Outreach: Jeff Bernardis reports that there are 2 events coming up. One is Stuart Day School; the other is the event at Princeton University on the 31<sup>st</sup>. We will try to have a banner made for that event and future public events. The event at the Allentown School earlier this month was well attended.

Ludy D'Angelo (Secretary) reported that the minutes for the last meeting were published. The membership stands at 101 members.



Brian VanLiew (Treasurer) reported that the club has \$12,857.54 in the bank.

The meeting ended at 10:20 PM. *Audio of the member meeting (not the lecture) is available from the Secretary.*

Ludovico D'Angelo  
Secretary

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## Explorations



**High Drama at Hillary:** Following a treacherous ascent to the summit of Husband Hill, the Mars Rover Spirit is angled up 27 degrees on a risky slope and the robotic arm reaches out to place science instruments on “Hillary” outcrop where wheel slippage became a major concern. This hazard camera image was published in the 14 November 2005 issue of *Aviation Week and Space Technology* magazine and derived by my international team of Mars enthusiasts. Photo Credit: NASA/JPL Hazcam image color coded by Marco Di Lorenzo, Douglas Ellison, Bernhard Brauer and Kenneth Kremer using JPL/Cornell Pancam data. Reprinted by permission of *Aviation Week and Space Technology* magazine. This picture was recently featured on *Astronomy Picture of the Day (APOD)* on March 13, 2007 as “Attacking Mars” and can be downloaded in high resolution.

**NASA Mars Rovers:** The twin sisters *Spirit* and *Opportunity* have celebrated 3 Years of roving on Mars. Their intrepid adventures continue to amaze even their creators with their longevity, about 12 times beyond design lifetime. With the arrival of Martian Springtime on Feb 8, the immediate outlook is promising as power levels increase. *Opportunity* is circumnavigating the giant ½ mile wide Victoria Crater searching for an entry point while *Spirit* approaches what may be an eroded over volcanic cone.

**ESA Rosetta Mission:** On 25 February 2007, the ESA Rosetta comet chasing mission flew by Mars to within 150 miles of the surface of the red planet. That’s closer than the 3 science surveying spacecraft currently orbiting Mars from NASA and ESA (the European Space Agency). To see one of the many amazing images transmitted back to earth, check out the “astronauts eye view” featured on *APOD* on 1 March 2007. The main goal of this flyby (and three future flybys of Earth) is to hit the exact aim point required to target Rosetta on course for its long, circuitous trek through the inner solar system and the

asteroid belt to reach Comet 67P Churyumov-Gerasimenko. Rosetta will rendezvous with and eventually orbit the comet in 2014.

**New Horizons Jupiter Flyby:** The first NASA mission target to the planet Pluto, rocketed past Jupiter on 27 Feb for a gravity assisted flyby which will cut the travel times by 3 years. Over 700 science observations were successfully completed. The data is streaming back, including the best ever view of a plume erupting from a volcano, near the north pole of the moon Io.

Ken Kremer  
AAP Program/Lecture Chairman

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## South Pole Flyby from NASA News

"The sun's south pole is uncharted territory," says solar physicist Arik Posner of NASA headquarters. "We can barely see it from Earth, and most of our sun-studying spacecraft are stationed over the sun's equator with a poor view of higher latitudes."

There is, however, one spacecraft that can travel over the sun's poles: *Ulysses*, a joint mission of NASA and the European Space Agency. And February 7<sup>th</sup> *Ulysses* made a rare South Pole flyby. "On February 7th, the spacecraft reached a maximum heliographic latitude of 80°S—almost directly above the South Pole," says Posner who is the *Ulysses* Program Scientist for NASA.

Solar physicists are thrilled. *Ulysses* has flown over the sun's poles only twice before--in 1994-95 and 2000-01. The flybys were brief, but enough to prove that the poles are strange and interesting places.

(For full report go to [http://science.nasa.gov/headlines/y2007/07feb\\_southpole.htm](http://science.nasa.gov/headlines/y2007/07feb_southpole.htm))

Consider the following:

1. The sun's magnetic north pole sticks out the south end of the sun. Magnetically, the sun is upside down! "Most people don't know it, but we have the same situation here on Earth," notes Posner. "Our magnetic north pole sticks out of the geographic south pole. "Magnetically, Earth and sun have a lot in common. "Both the sun's and Earth's magnetic poles are constantly [on the move](#), and they occasionally do a complete flip, with N and S changing places." This flipping happens every 11 years on the sun in synch with the sunspot cycle. It happens every 300,000 years or so on Earth in synch with--what? No one knows. "Studying the polar magnetic field of the sun might give us some clues about the magnetic field of our own planet."
2. There are holes over the sun's poles--"coronal holes." These are places where the sun's magnetic field opens up and allows solar wind to escape. "Flying over the sun's poles, you get slapped in the face by a hot, million mph stream of protons and electrons," he says. *Ulysses* is experiencing and studying this polar wind right now.(Note: Earth has a polar hole, too—the ozone hole. The chemistry of the ozone hole is totally unrelated to the magneto-physics of coronal holes, but says Posner, "it is interesting that so many poles seem to have holes.")
3. Just as the sun's polar magnetic field allows solar wind *out*, it also allows galactic cosmic rays *in*. Could the space above the sun's poles be a place where we can sample interstellar matter without actually leaving the solar system? "That's what we thought before our first polar flyby in 1994," recalls Posner. "But we were wrong. Something is keeping cosmic rays out of the sun's polar regions. The current flyby gives us a chance to investigate this phenomenon."
4. Another mystery: There is evidence from earlier flybys that the north pole and the south pole of the sun have different temperatures. "We're not sure why this should be," says Posner, "and we're anxious to learn if it is still the case." Today's south polar flyby will be followed by a north polar flyby in early 2008, allowing a direct north vs. south comparison.



## You're Invited !



### Simpson Observatory Open Houses

**Our public nights season resumes April 6th, 2007.**

The Amateur Astronomers Association of Princeton opens its observatory to the public starting Friday, April 6th, this year. *We are proud to announce expansion of the open house schedule to every Friday evening, April 2007 - October 2007, weather permitting.* Please refer to the schedule below in the blue box. Anyone interested in the night sky is [invited to visit](#).

Our website is [www.princetonastronomy.org](http://www.princetonastronomy.org)

#### Hastings-Byrne 6.25" Refractor

Located in [Washington Crossing State Park](#), the observatory houses a beautifully refurbished 6.25" Hastings-Byrne refractor and research-grade [14" Celestron Schmidt-Cassegrain reflector](#). During our open house season, guests can mingle with [amateur astronomers](#) to view a myriad of celestial objects. Members frequently bring smaller instruments and set up around the main observatory. Guests are invited to do the same! Have questions about visiting the observatory? [Email us](mailto:info@princetonastronomy.org) (info@princetonastronomy.org) -- we'll be glad to help!

The observatory phone is **609-737-2575**. You may call if weather is variable to see if we will open.

#### 2007 Public Night Dates at Simpson Observatory

April 6, April 13, April 20, April 27,

May 4, May 11, May 18, May 25, June 1, June 8,

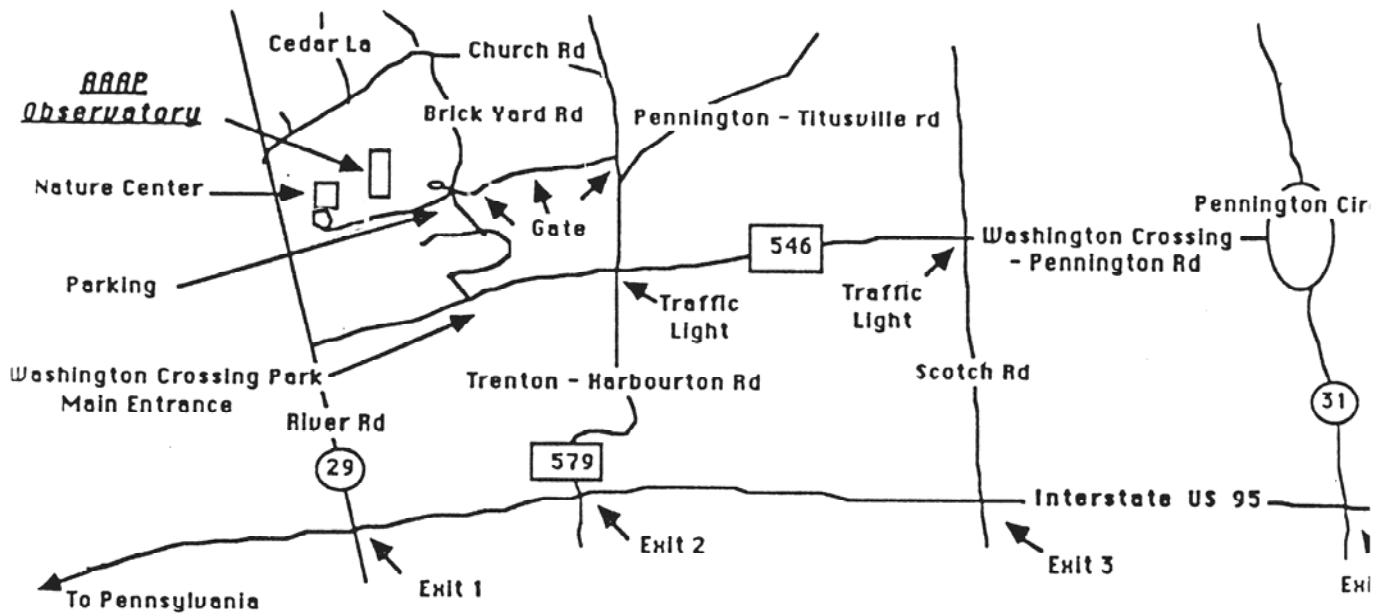
June 15, June 22, June 29, July 6, July 13, July 20,

July 27, Aug 3, Aug 10, Aug 17, Aug 24 Aug 31,

Sept 7, Sept 14, Sept 21, Sept 28, Oct 5,

Oct 12, Oct 19, Oct 26

---- Observatory phone: 609-737-2575 ----



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.princetonastromy.org](http://www.princetonastromy.org)

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April 2007