



NEWSLETTER

# RITTENHOUSE ASTRONOMICAL SOCIETY

Founded 1888 WWW.RITTENHOUSEASTRONOMICALSOCIETY.ORG

April 2011

OPEN TO PUBLIC AND STUDENTS  
Upcoming Meeting on April 13th  
7:15 PM  
The Franklin  
20th Street and Benjamin Franklin Parkway

### Visible Planets 04/13/2011

	Rises	Transit	Sets
Mercury	06:05 am	12:33 pm	07:01 pm
Venus	05:16 am	11:03 am	04:50 pm
Mars	05:57 am	12:08 pm	06:20 pm
Jupiter	06:20 am	12:43 pm	07:06 pm
Saturn	06:31 pm	12:24 am	06:18 am

## April's Meeting

Dr. Milton Friedman

### Prescription for Space

### Medical Implications of Space Travel

Dr. Milton Friedman will share with us his views on the medical implications of space travel. How will astronauts endure extended missions? What medical implications are there for traveling to the moon, the planets, and possibly other star systems? With Dr. Friedman's combined background as a medical doctor and the president of our society, he can give us a unique perspective of what future space travelers will have to contend with physically and medically.



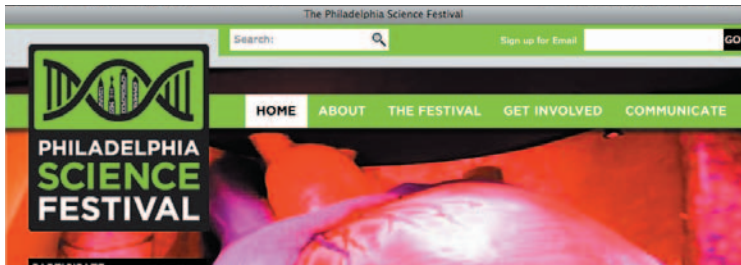
## March's Meeting

Many thanks to Dr. Bill Metz: Bill really opened our eyes to some astronomical misconceptions we carry, and some good ideas of how to go about changing those misconceptions. Bill was able to inspire our members to take the role of teacher each time someone steps up to your telescope.

Also at our March meeting, Dr. Rein conducted an effective briefing of how to use his exo-planet application. We will be asking Dr. Hanno Rein (ExoPlanet Application creator, editor) to return and address our organization about detecting Exoplanets this Fall. We appreciate his orientation on the application at our March meeting. We all realize we have much more to learn about this ever expanding field.

### Meeting Agenda

- 5:15 - Business Dinner at Pete's
- 7:15 - Welcome
- 7:20 - What's Up
- 7:30 Lesson "How the Universe Works"
- 7:50 - President's Message
- 8:00 - Coming Attractions
- 8:05 - Guest Presenter
- 8:50 - Q&A on Topic
- 9:00 Q&A Mixer in Observatory



## Philadelphia Science Festival Update

### *PARKWAY Festival / City Wide Telescope Night*

As the science festival draws near, we ask our members to consider stepping forward to join in the excitement. We will be looking for a crew of folks to assist us with “Science on the Parkway” on April 16, 2011. It is an all day festival during which we will be working with the Franklin and other area astronomy organizations. We are preparing a solar system scale model through which participants can walk through.

Fern Culhane measured the parkway pacing it out to determine how much of the solar system we can feasibly represent. She has recommended that if we are stretched along the parkway, we might only display planets out to Jupiter. If we include the entire solar system, it would

cause the inner planets to be all clustered up close to the sun, with few paces separating them. We have a parkway map on our Ning site to give all an idea of the location.

Fern has posted a few scales to consider on our NING site. She has stressed the importance of a scale model for distance and size that is accurate, but we understand that may not be possible. It will be dependent on the total length of the area we will set up.



Milt has suggested that we scale the model across the front of the Franklin to keep the whole solar system in view and to give a more coherent look to the whole model.

We are also looking for some folks to help out on the City Wide telescope event night on Thursday April 21. Sights below are approved by the Franklin Institute and anyone interested in setting up a scope for a few hours that night is welcome.

## PHILADELPHIA SCIENCE FESTIVAL - ASTRONOMY NIGHT PUBLIC OBSERVING LOCATIONS\*

1	<b>Fairhill Burial Ground</b> , 2901 Germantown Avenue, Phila., PA 19133 – Quaker-run facility.
2	<b>Imani Charter School</b> , 5612 Greene Street, Phila., PA 19144 – <i>*Long-time partner in the Philadelphia/Camden Informal Science Education Collaborative; actual school location.</i>
3	<b>Philadelphia Center for Arts and Technology</b> , 2111 Eastburn Avenue, Phila., PA 19138 <i>* New Community Center</i>
4	<b>School District of Philadelphia</b> , 440 N. Broad Street, Phila., PA 19130 <i>* the former 'Evening Bulletin' newspaper building</i>
5	<b>LEAP Charter School</b> , 549 Cooper Street, Camden, NJ 08102 <i>*Long-time partner in the Philadelphia/Camden Informal Science Education Collaborative; actual school location.</i>
6	<b>Norris Square Civic Association</b> , 149 West Susquehanna Ave., Phila., PA 19122 <i>*Long-time partner in the Philadelphia/Camden Informal Science Education Collaborative; house with classrooms and extensive gardens.</i>
7	<b>Clark Park</b> , 4398 Chester Ave., Phila., PA 19155 – park section owned by University of the Sciences; school building right across the street.
© Each location will be staffed with three or more facility volunteers and each will have their buildings open, some with additional programming for the evening. Restrooms will be available.	
For an updated list of approved sites go to <a href="http://www.philasciencefestival.org/">http://www.philasciencefestival.org/</a> For more information contact: Derrick Pitts, <a href="mailto:dpitts@fi.edu">dpitts@fi.edu</a> or 215 448 1234	



## President's Message

*Dr. Milton Friedman*

Enough's enough! All of us who are interested in astronomy are fed up with having to defend what we know about the Big Bang, the twelve astronauts who walked on the moon in the Apollo era, and the exotic happenings in cosmology. When NASA and university astronomers give us information, we know they're sure what they've stated is true because they have spent considerable time carefully analyzing data that reinforces and confirms their evidence.

The list of doubters and non-believers is long. Many people on the list simply have a psychiatric problem and can never be swayed in their viewpoints. Others have written a book on the subject or give talks to other non-believers or a skeptical public who has a tilt to believing science is a cover up of what is really going on. It is a rare occasion when the challenger of the facts has no financial gain from ticket sales or book signings.

What's most amazing is that non-believers can't be swayed away from their incorrect viewpoint when presented with scientific facts. Also, in general, the public finds it's easier to doubt and get some attention than to listen to the truth while sitting quietly without a response.

We present some theories coming from non-believers. Aliens have been to Earth in the past or are here now. They built the pyramids in Egypt and drew the Nazca giant animal pictures in the desert of Peru. Aliens had landed in the 1940s in New Mexico and our government has covered up all knowledge of the event for 60 years. The Apollo moon landings never happened and many ships disappeared in the Bermuda Triangle of the Atlantic Ocean. (The U.S. government has been so busy doing all these cover-ups it's no surprise that there's no time left in Washington to do anything else).

The long list of challenges to scientific facts has generated books, movies and television series. The only way to stop the challenges of the facts is by asking the questioner if he or she is willing to accept the truth if you present it with reliable sources of information. If you need help, we at the Rittenhouse Astronomical Society will assist you in ending all those false claims.



*Space Shuttle Discovery lands on March 9, 2011 at the Kennedy Space Center in Florida Credit: Ken Kremer*

## Perfect Landing Concludes Final Mission of Space Shuttle Discovery

*Dr. Ken Kremer*

Farewell Discovery ! The epic voyages of Space Shuttle Discovery now belong to history.

The final magnificent mission of Space Shuttle Discovery and her all veteran six-astronaut crew wrapped up on March 9 with a safe landing at the Kennedy Space Center in Florida at 11:57 a.m. EST after a flawless mission. Steve Lindsey commanded the STS-133 flight and was joined by Pilot Eric Boe and Mission Specialists Alvin Drew, Steve Bowen, Michael Barratt and Nicole Stott.

Discovery's 13 day flight ended after a journey of more than five million miles on a joyous and bittersweet note. I was watching from just a few hundred yards away at the shuttle landing strip.

The entire NASA shuttle team is proud of the accomplishments of the Space Shuttle Program but sad that the program is ending so soon. The sentiment from everyone involved with the shuttle program from top management to the flight team to the astronauts corps is that the orbiters could be safely and usefully flown for many more years.

The STS-133 mission was the 39th and final flight for the illustrious orbiter which first flew in 1984 and is NASA's longest serving orbiter. NASA Shuttle managers emphasized that the safe conclusion of the STS-133 mission was due to the hard work of everyone on the team and the absolute requirement that everyone stay totally focused on getting the job correctly and perfectly.

### Upcoming Speakers

May	Dave Walker - Franklin Institute, Fels Planetarium
June	Members Night: Members Presentations



*Space Shuttle Discovery lands at the shuttle landing strip on March 9, 2011 at the Kennedy Space Center in Florida Credit: Ken Kremer*

“Spaceflight doesn’t come easy,” said Bill Gerstenmaier, associate administrator for Space Operations. “We need to stay focused, keep our heads down and recognize that this is not easy. I think Discovery’s legacy will be the future.”

Altogether, Discovery spent a full year (365 days) in space during the 39 missions, orbited Earth 5,830 times and traveled 148,221,675 miles during a career spanning 27 years.

“We wanted to go out on a high note and Discovery’s done that,” said Mike Leinbach, shuttle launch director. “We couldn’t ask for more. It was virtually a perfect mission conducted by a perfect flight crew and a perfect ground crew. I couldn’t be happier.”



*Towback of Discovery from the Shuttle Landing Facility to Orbiter Processing Facility-2 after landing at KSC. Credit: Ken Kremer*



*Space Shuttle Discovery concluded her magnificent final journey with a safe landing on March 9, 2011 at the Kennedy Space Center in Florida at 11:57 a.m. EST. Credit: Ken Kremer*

The primary goal of the STS-133 mission was to deliver the “Leonardo” Permanent Multipurpose Module to the ISS. Leonardo was attached to the ISS as a new and permanent habitable module that will provide extra storage and living space for the six person ISS crew. Also aboard Discovery was R2, or Robonaut 2, which is the first humanoid robot in space. R2 was unpacked from Leonardo a few weeks later and become an official member of the station crew.

Discovery will now be decommissioned over the next few months and then be prepared for a museum display, most likely at the Smithsonian National Air and Space Museum in Washington, D.C.

Next month I’ll report about my up close visit on top of Launch Pad 39A with Space Shuttle Endeavour for her final flight on the STS-134 mission.



*The crew of Space Shuttle Discovery at the post landing News conference on March 9, 2011 at KSC. Credit: Kenneth Kremer*

## Astronomy Outreach:

*Dr. Ken Kremer*

Please contact me for more info or science outreach presentations by email. My upcoming Astronomy talks include:

•**International Astronomy Day at the Franklin Institute:** Philadelphia, PA, May 7, Sat

•**Amateur Astronomers Association of Princeton:** Princeton, NJ, May 10, Tue, 8 PM: “Whats Beyond for NASA: Shuttle, Station, Orion, SpaceX & Robots”. Website: <http://www.princetonastronomy.org/>

•**Rittenhouse Astronomical Society (RAS) at the Franklin Institute:** Philadelphia, PA, Jun 9, Wed, 7 PM. “Opportunity Mars Rover Update”, “ NASA Flybys of Comets Hartley 2 & Temple 1” Website: <http://www.rittenhouseastronomicalsociety.org>

**Dr. Ken Kremer** Email: [kremerken@yahoo.com](mailto:kremerken@yahoo.com)  
**Spaceflight Magazine & The Planetary Society**  
<http://www.rittenhouseastronomicalsociety.org/Dr.Kremer/K.htm>

## Additional Readings and Information

*Dr. Ken Kremer*

*Spaceflight magazine, Universe Today & The Planetary Society*

Read my STS-133 articles online at Universe Today, The Planetary Society & CWEB.

Discovery Lands to Conclude  
 Historic Final Flight to Space

<http://planetary.org/blog/article/00002952/>

[Discoverys Last Launch and Landing Captured in Exclusive Amateur Videos](#)

[Robo Trek Debuts ... Robonaut 2 Unleashed and joins First Human-Robot Space Crew](#)

[NASAs Navy tows Discoverys Last Rocket Boosters into Port Canaveral – Photo Album](#)

[Discovery Docks at Space Station on Historic Final Voyage with First Human-Robot Crew](#)

Landing and Towback of Discovery:  
 Photo Reports

<http://space.cweb.nl/article.html?id=1763>

<http://space.cweb.nl/article.html?id=1759>

**Ken Kremer:** Spaceflight magazine, Universe Today & The Planetary Society

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website: [www.kenkremer.com](http://www.kenkremer.com)

<http://www.universetoday.com/author/ken-kremer/>



A stunning visual and musical presentation of Holst The Planets, Friday May 13, 2011 at 7:00 in Verizon Hall. Ticket prices vary from low \$15.00 up to about \$55.00. At this point, seats are still available. [www.ticketphiladelphia.org](http://www.ticketphiladelphia.org), [kimmelcenter.org](http://kimmelcenter.org) or call 215-893-1999.

How about a group event? Please purchase your tickets individually as needed and those who attend can either meet before the concert or afterward at a local bar or club. If you sign up on our Members Network and RSVP to this event notice, we will know who plans to attend. Remember, purchase your tickets individually now to assure you have a seat!

Our Mailing Address:

**Rittenhouse Astronomical Society**  
**P.O. box 283**  
**Feasterville, PA 19053-0283**



# Looking for Volunteers



*Please consider volunteering at one or more of several events coming up soon this spring that Rittenhouse Astronomical Society is supporting:*

***(Contact an Officer if interested!)***

<b>April 16</b>	<b><i>Philadelphia Science Festival, Parkway Festival</i></b> - Rittenhouse is planning a presence in front of the Franklin Institute. Milt has suggested that we scale a model of the Solar System across the front to keep the whole solar system in view and to give a more coherent look to the whole model WE NEED PEOPLE TO HELP TALK TO VISITORS ABOUT OUR SOLAR SYSTEM.
<b>April 21</b>	<b><i>Philadelphia Science Festival, City-Wide Telescope Event</i></b> - We are looking for some members to help out on the City-Wide-Telescope event night on Thursday. Some public viewing sights are approved by the Franklin Institute, but anyone interested in setting up a scope for a few hours that night is welcome. Just pick a spot and let us know where you are going to be located. Bring a friend and spend some fun time under the sky taking in the wonders of our universe and share with an occasional stopper by.
<b>May 7</b>	<b><i>International Astronomy Day.</i></b> Mark your calendars, RAS member volunteers will be needed, consider getting involved! More details to follow...

