



CONSTELLATION

Spring 2017, No. 1

Middle Atlantic Planetarium Society Regional Meetings May 19-20, 2017

As you know, MAPS is officially joining the rest of the country in the Pleiades National Planetarium Conference at St. Louis, MO October 10-14, 2017. The Executive Committee hopes that many of our MAPS friends will attend with us and we will hold our official business meeting there. More information on the National meeting can be found online at pleiades2017.com.

Meanwhile, a few supportive members have volunteered to hold springtime area meetings within the region offering even more professional development and enjoyment to MAPS folks. These are akin to our established tradition of Armand Spitz Regional Meetings and will be 1 or 2 day gatherings for sharing activities on various themes. The hosts are at various stages of developing their meeting plans to take place at Lanham, MD, Schenectady, NY, Indiana, PA, and Mystic Seaport, CT. If you would like to offer input and support for them please contact, respectively, Patty Seaton, Megan Norris, Ken Coles and Brian Koehler. Registration information will be available on the MAPS web site as plans are finalized.

Seeing Light in the Darkness: Educating the Audience in the Year of the Eclipse Indiana, PA May 19, 2016

You are invited to attend the planetarium mini-conference at Indiana University of Pennsylvania (IUP) in Indiana, PA. The theme for the meeting is inspired by the total solar eclipse that will cross the U.S. in August. Presentations or demonstrations involving any sort of teaching in the planetarium (formal or informal, whether related to the 2017 solar eclipse or not) are invited. The IUP planetarium has a 30-foot dome, 74 seats, and a venerable Spitz A3P projector that will be celebrating its 50th year in May.



In addition to sharing of presentation and teaching ideas (9:00 a.m. to 4:00 p.m.), the evening includes a star party at the Mingo Creek Observatory of the Amateur Astronomers Association of Pittsburgh, about a 75 minute drive southwest from IUP. This facility includes a small planetarium that is an integral part of star parties (rain or shine!), an informal education setting that will be of interest to conference participants. Telescopes include a 10-inch refractor and a 24-inch Ritchey-Chrétien. We will carpool to this location and return to Indiana, PA, or you may drive on your own.

Thanks to support from Indiana University of Pennsylvania, there is no cost to those attending the conference. Meals (and lodging, if needed) will be on your own; we will provide a list of nearby

(Continued on page 3)

CONTACT!

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President's Message

Happy Spring Equinox!

Congratulations to the new officers coming on board to MAPS. President-Elect April Whitt, Secretary Amie Gallagher and Treasurer Talia Sepersky are excited to start in their new positions and will be looking forward to your support as members. Thanks also to all the other candidates that ran. It is great to have a strong slate of people running for office. I hope everyone is getting ready to attend a mini-conference this spring. Elsewhere in this newsletter, there are descriptions of what each is planning for their events. A big aspect of each conference is your participation. Bring a lesson, story, idea to discuss and project to share. No item is too small or large to be included. Contact the conference host to see how your idea will fit in to their plans.

The other big event coming up after the mini-conferences is of course the August eclipse. Be sure to share your plans on how you expect to witness the eclipse, and share afterwards what happened on your great adventure. My basic plan is to head for the Columbia South Carolina area. It's a 3-hour drive for me, so I just need to hope for good weather. My contingency plan is to drive farther west a day or so early, if the weather is looking bad for SC. Anyone headed to Wyoming or the Midwest in general? What are your plans to see it and how are you educating the public about the eclipse? Bring your ideas to one of the spring conferences and let's also discuss this on Maps-L.

In other news, discovery of Earth-like planets is getting some press and the general public is excited. Lots of friends and neighbors are asking me questions about Exoplanets. The next few years will be exciting with the James Webb Space Telescope being launched soon and other initiatives making progress on the search for life beyond Earth. Maybe this will be a theme for a future conference.

So long for now,

Jerry Vinski, President
Middle Atlantic Planetarium Society

MAPS Regional Meetings (Continued from page 1)

hotels and places to eat.

Information on the conference and on submitting a proposal for a presentation will be posted at:
<http://www.iup.edu/geoscience/about/facilities/planetarium/>

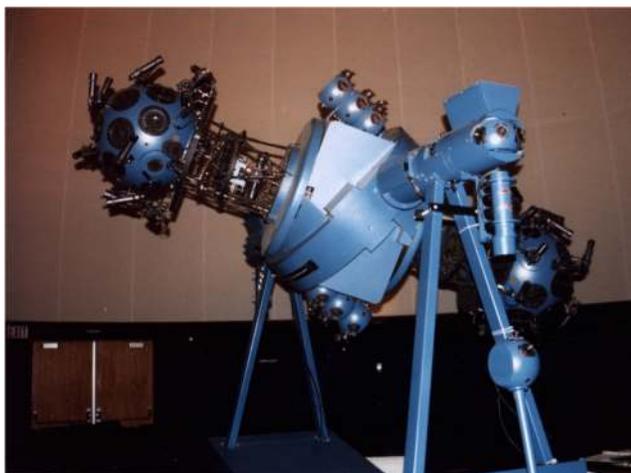
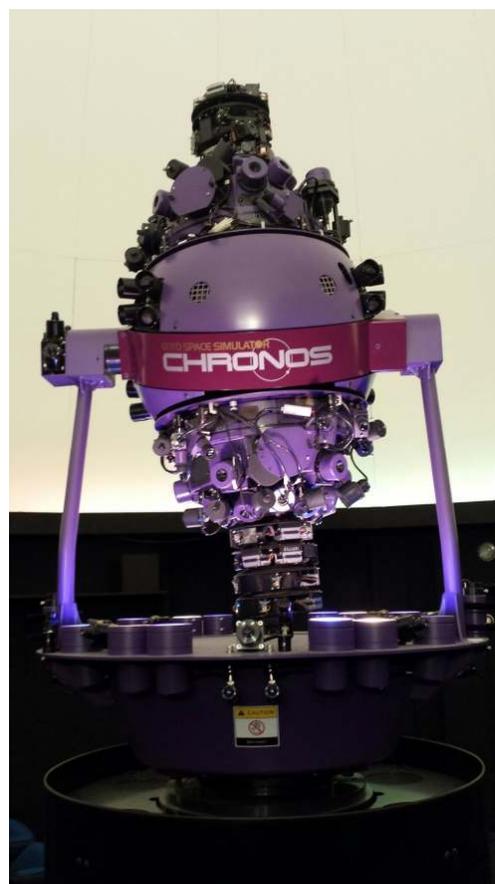
For more information, contact Ken Coles, Planetarium Director, at kcoles@iup.edu, (724)-357-5626, or by mail at Geoscience Dept., 111 Walsh Hall, Indiana Univ. of Pennsylvania, Indiana, PA 15705.

Schenectady, NY May 19-20, 2017

Host: Suits-Bueche Planetarium at miSci
 Contact: Megan Norris, Planetarium Director, Megan.Norris@misci.org
 Conference Dates: May 19-20, 2017
 Conference Start: 9:00am on Friday May 19th
 Conference End: 3:00pm on Saturday May 20th
 Conference Theme: History of Astronomy

History of Astronomy: Rare Books Tour at Union College, presentation and star party at the Octagon Barn, group discussion “How do you teach about the Space Race and Moon Landings to your groups?”

Registration Cost: TBD (depending on vendor sponsorship), but I anticipate the cost to be between \$25-\$50



Lanham, MD May 19-20, 2017

Host: Howard B. Owens Science Center
 Contact: Patty Seaton, Planetarium Specialist, pxts13@yahoo.com

On behalf of the Howard B. Owens Science Center, Planetarium Specialist Patty Seaton invites you to participate in our planned “mini-conference” under the theme *Teaching and Learning Under the Stars*

The goal of this meeting is twofold: (1) to provide a means of collaboration among planetarium educators in the region during the gap between the July 2016 MAPS meeting and the October 2017 Pleiades Conference, and (2) Foster collaboration be-

tween planetarium educators and teachers on best practices under the dome with reinforcements in the classroom

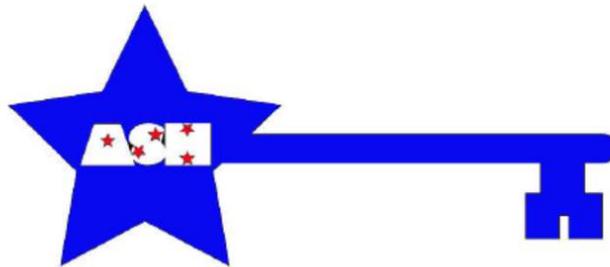
Friday, May 19, is planned for just Planetarium educators, and will include a morning 2-hour tour of the Goddard Space Flight Center. The afternoon will consist of workshops, paper sessions, and presentations. Saturday is planned to be a joint meeting of planetarium educators and educators from Prince George's County Public Schools. Both will participate in a morning session exploring the Sun (Solar Quest), and an afternoon session exploring what is More than Meets the Eye, including making our own telescopes. Planetarium Educators will gain first-hand experience with successful planetarium programs running at HBOSC. In addition, they will interact with PGCPs classroom teachers who have benefitted from the HBOSC programs and taken the resources to their classrooms. Teachers and Planetarium Educators will collaborate to develop meaningful STEM experiences for all planetarium facilities and classrooms.

To help cover costs of food and supplies, registrants will be asked to pay a nominal fee of \$30. Since this is expected to be primarily a local meeting, no specific hotels have been booked for this conference. A list of nearby hotels and prices will be provided with the registration materials for those who are interested in traveling in to the meeting.

We hope you can join us for this unique experience!

(Continued on Page 5)

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Mystic, CT June 8-9, 2017

Host: Treworgy Planetarium, Mystic Seaport Museum
Contact: Brian Koehler, Planetarium Supervisor,
Brian.koehler@mysticseaport.org

Dates: Thursday-Friday, June 8-9, 2017
Theme: Engaging Audiences of all Ages

The staff and volunteers of the Treworgy Planetarium at Mystic Seaport would like to invite all members of the Middle Atlantic Planetarium Society to a Regional Meeting here in Mystic from June 8-9, 2017. The meeting will commence at noon on Thursday and will adjourn at approximately 4:30 PM on Friday.



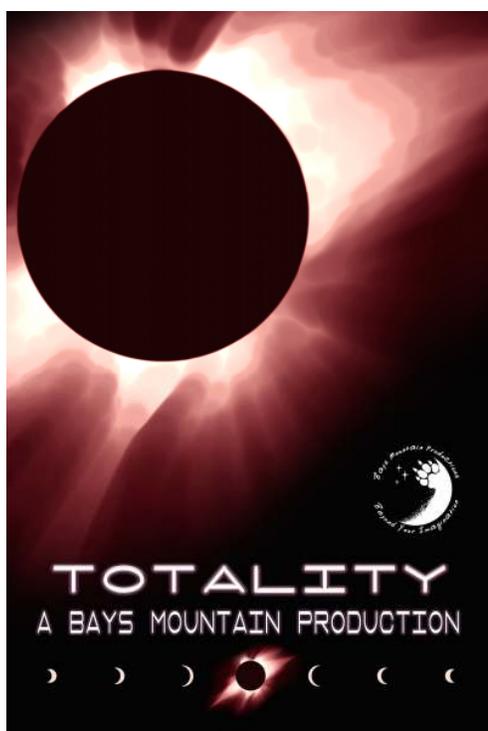
The theme of our Regional Meeting is “Engaging Audiences of All Ages”. In the planetarium field, we all see a wide variety of visitors come through our doors – from infants and toddlers, to elementary and middle school students, to high schoolers and college students, to adults and senior citizens. Each demographic brings its own challenges but presents its own unique opportunities. Workshops, panels, and talks at our meeting will focus on presentation styles, special accommodations, behavior management techniques, and general programming ideas for each of these groups – and of course, the inevitable scenario where two or more of these demographics combine into one audience!

Sessions will occur either in classroom spaces or inside our Planetarium Theater, whose 30-foot dome contains a Spitz A3P optical-mechanical star projector, which is accompanied by two digital media (non-fulldome) projectors for the display of slides and images on the dome’s surface.

Weather permitting, Thursday night will be punctuated by an evening gathering at one of our local observatories, for a telescope viewing session of the night sky as it appears here in New England. A list of the wide variety of area hotels will be provided to those who seek overnight accommodations for June 8th.

A registration fee of \$40 per person will help to cover lunch on both days of the meeting, coffee/tea/drinks throughout the two days, and any materials, supplies, and equipment needed for the various workshop sessions. Registration information will be posted on the MAPS website very soon.

We hope to see you all here in Mystic this coming June!



CONSTELLATION DEADLINES

The Constellation is published quarterly near the equinoxes and solstices. Please keep in mind the following deadlines:

Cover Date	Deadline
March 2017	Friday, Mar. 3
June 2017	Friday, Jun. 2
Sep. 2017	Friday, Sep. 8
Dec. 2017	Friday, Dec. 8

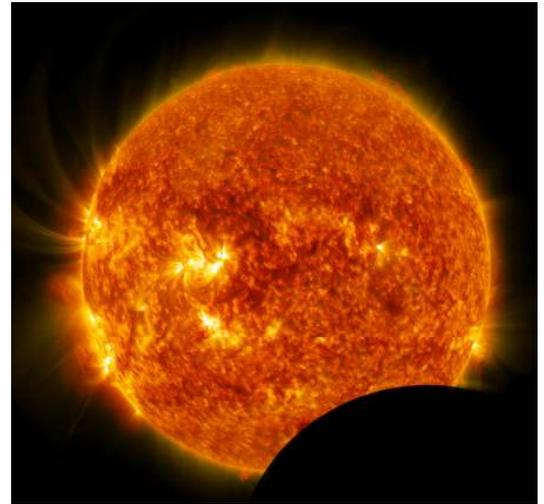
Submissions should be sent to the editor:

Kevin Conod
(973) 596-6609
kdconod@yahoo.com

MAPS EDUCATION COMMITTEE

The upcoming August Total Solar Eclipse provides us with an opportunity to engage our audiences with one of nature's greatest shows. There's a wide array of possibilities for us to share our enthusiasm and educate our visitors through our two main vehicles: "**Questions That Lead to Lessons**" and "**Stories in the Stars.**"

Among the many resources available to us in preparing for this topic are the following websites.



NASA/SDO

ECLIPSE 2017

- <https://eclipse2017.nasa.gov/>
- <http://www.mreclipse.com/MrEclipse.html>
- http://www.eclipse2017.org/2017/path_through_the_US.htm
- <http://eclipsewise.com/solar/SEnews/TSE2017/TSE2017.html>
- <http://www.space.com/33797-total-solar-eclipse-2017-guide.html>
- <https://www.timeanddate.com/eclipse/solar/2017-august-21>
- <https://www.greatamericaneclipse.co>

Another great resource for planetariums with full dome systems is Rice University's animations which show views of solar and lunar eclipses as seen from various viewpoints. They were created by Don Davis under contract to Rice University, paid for by the NASA's Heliophysics Education Consortium, and are copyright Rice University. Higher-resolution versions are available on request, and are free except for media and shipping and handling.

For more information see: http://space.rice.edu/eclipse/eclipse_animations.html

You may have another favorite- please share it with us.

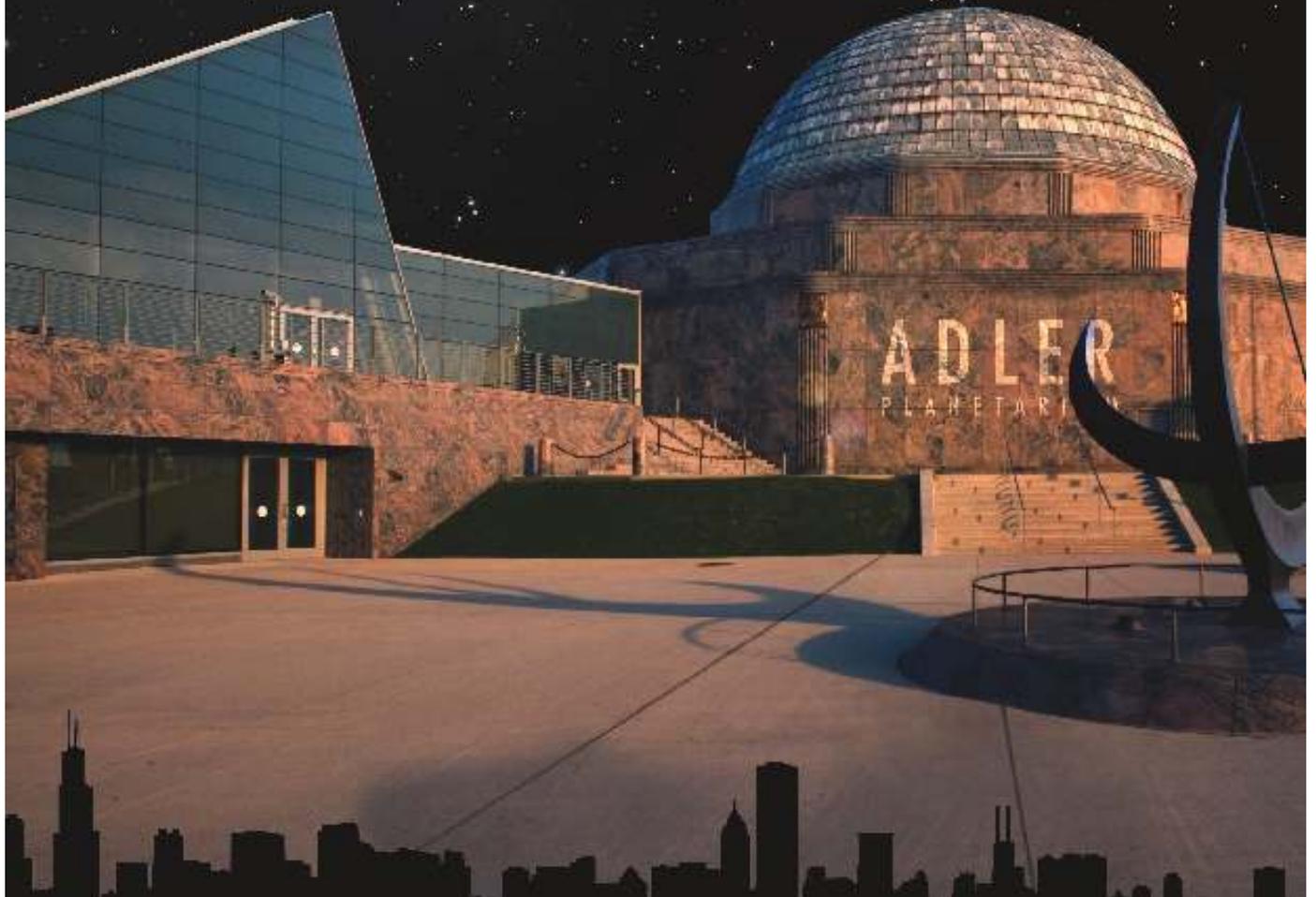
Note the March issue of [**The Science Teacher**](#) has three excellent articles on Moon phases, shadows, and eclipses.

Look for Francine's review of Dava Sobel's new book, "**The Glass Universe**" on page 13 of this issue.

Lee Ann A. Hennig, Chair
MAPS Education Committee
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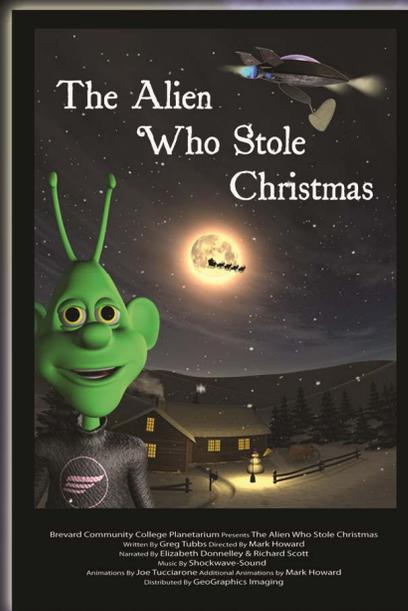
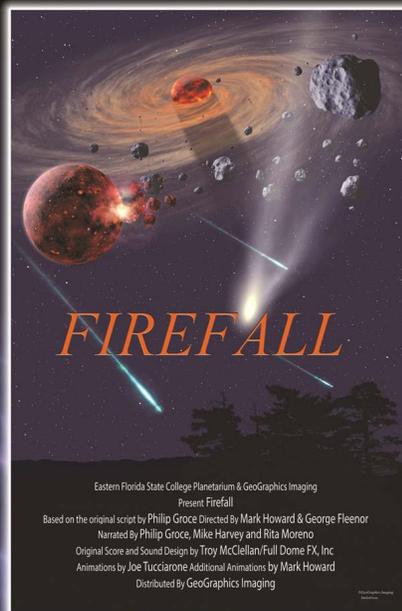
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GOTO Gets Ready!

Since our founder Seizo Goto filmed a total solar eclipse in Japan in 1936, GOTO INC has been fascinated by eclipses. Today, as millions of Americans prepare for the 2017 eclipse, the country's planetariums are acting as important resources for their communities. Curious and eager audiences are flocking to local school and public programs to learn about moon phases, solar science, eye safety, and the history and cultural importance of eclipses. The months leading up to a total solar eclipse are perhaps astronomy's most "teachable moments."

★ : GOTO installation theaters.



Sage Valley Junior High School
CHRONOS II HYBRID
Gillette, WY

Honolulu, HI



Sudekum Plantarium,
Adventure Science center
CHIRON HYBRID
Nashville, TN



Young Harris College
GSS-CHRONOS
Young Harris, GA

Here are a few examples of the ways GOTO INC is helping to bring the eclipse to America:

1 Installed Model : CHRONOS II HYBRID

Installed Model : CHRONOS II HYBRID, They are using the precise positions and motions of their GOTO CHRONOS II HYBRID's sun, moon, and planets to teach K-12 students about the eclipse. Planetarium director Paul Zeleski says, "Since we're about 97% eclipsed here, I plan to do some public outreach in Gillette with solar telescopes and some planetarium presentations to get people informed and then get them down to Casper for the main event."

2 Installed Model : CHIRON HYBRID

Planetarium director Derrick Rohl says, "Our activities build up to a 3-day Eclipse Science Festival we'll be hosting on eclipse weekend here in Music City. ... and our CHIRON projector is still looking as stunning as the day we opened. Not only do we use the CHIRON HYBRID system for pre-produced content like our new "ECLIPSE: The Sun Revealed" show, but we also use the system's realtime features 363 days a year to show off the night sky in "Skies Over Nashville."

3 Installed Model : GSS-CHRONOS

(The world's first CHRONOS site) is planning for its moment in the shadow with programs director Steve Morgan says, "... include a live-narrated segment focusing on local eclipse circumstances and information. The CHRONOS is useful for teaching about moon phases and showing the motion of the Moon in its orbit. We also can run the CHRONOS to the time of the eclipse and show the position of the planets and brighter stars in the sky in relation to the eclipsed Sun's position."

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<<http://tinyurl.com/domenavi-eclipse2017>>



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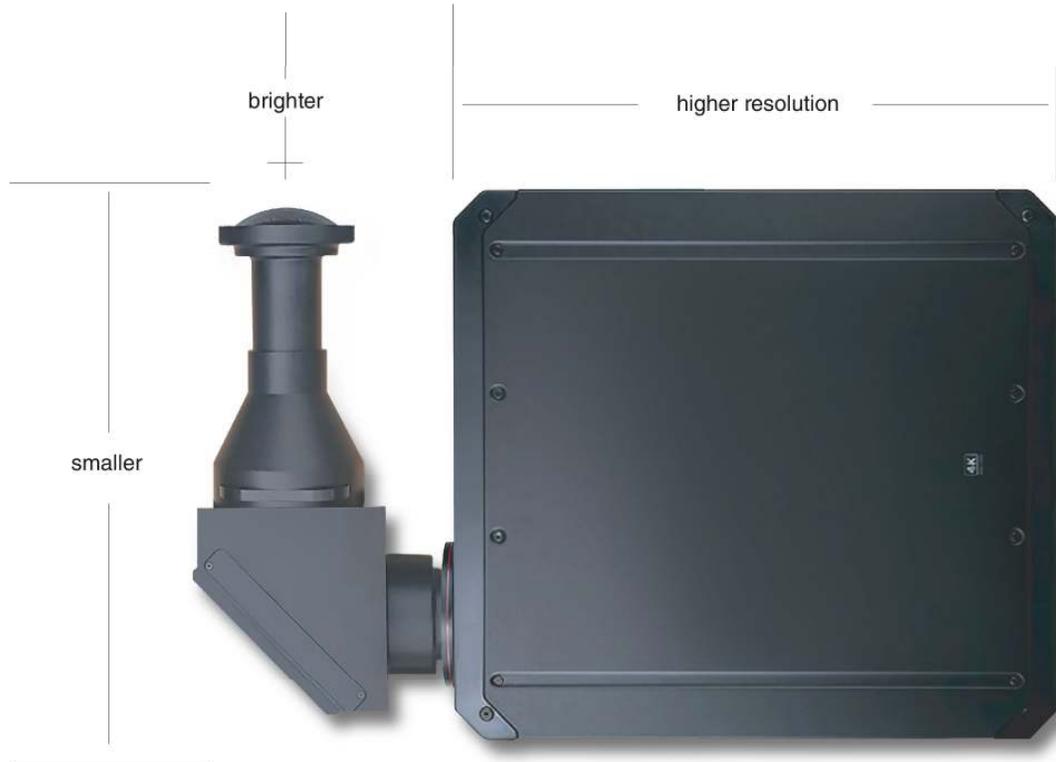
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Book Review

By Francine Jackson

The Science Behind Wonders of the Sky: Auroras, Moonbows, and St. Elmo's Fire

By Allan Morey

The book title should have added “and So Much More,” as those listed hardly encompass a quarter of the book. There are several pages concerning comets, including the now famous European Space Agency's very successful Rosetta mission to Comet 67P/Churyumov-Gerasimenko. In addition, “falling stars” are defined, although the author's use of the term “asteroid” instead of “meteoroid” to describe the tiny specks of material in the solar system is surprising. Morey also spotlights the Leonid meteor shower, as it does rain a possible hundreds of meteors per hour, but that only happens approximately every 3½ decades.



Joshua Strang/ USAF

The beautiful auroral activity is explained quite well, including the reason there are different colors that occur. Also interesting is the list of legends attached to these incredible phenomena.

Clouds take up a significant number of pages, beginning with the water cycle, continuing to the differing shapes and sizes they can become. Each type has a picture, with a smattering of information about each one, including the lenticular clouds, often mistaken for a UFO.

And, of course, if there are clouds, then thunder and lightning must follow, including the several different lightning types, and the “Amazing Fact” of the difference in speed of seeing lightning versus hearing the accompanying thunder.

Except for comets and the tiny specks that create meteors, everything in this book occurs within the Earth's atmosphere. Perhaps, instead of “Sky,” a better title would have been “Wonders of the Atmosphere.” However, regardless, this is a good introduction to some of the more beautiful effects that can be observed right over our heads, a book that will be referred to whenever the reader looks up and sees one of these incredible phenomena.

BIBLIO: 2017, Edge Books/Capstone Press

Ages 9-15, \$27.99

FORMAT: Grades 4-6

ISBN: 978-1-5157-0777-6

East Kentucky Science Center

Prestonsburg, KY

By Steven LJ Russo, Director.



Students from the Robot workshop with the robot they programmed

By the time you read this, we will probably be into Spring and at least here in Eastern Kentucky, the weather is Spring-like.

Late winter saw two interesting programs here at the EKSC. In December, we played host to a Robotics Workshop by Professor Amy LaViers from the RAD Lab at the University of Illinois at Urbana. Over two dozen middle school students took part in the workshop which taught about the jobs that robots do and programming. The finale of the workshop had the students program their own dance moves into a robot; making the robot move like them.

The big event this winter was the preparation and opening of our new exhibit: "Hubble Space Telescope, New Views of the Universe". I found out about this exhibit from Maurice Henderson (NASA Lead Hubble Outreach Coordinator) at the MAPS conference in Maryland back last July. The EKSC was closed for four days in mid-January to set up this exhibit, which normally takes about seven days.



Maurice Henderson from NASA, Steve Russo and Mayor Les Stapleton

Armed with a volunteer staff of around a dozen people, the 2,300 square foot exhibit was set up in just over three days with a VIP grand opening on the evening of January 20th. The VIP event was attended by a number of tourism offices, various media outlets, and special guests including our newly elected Kentucky State Representative Larry Brown and Prestonsburg Mayor, Les Stapleton. After an hour long session of speeches by Interim College President Alan Scheibmeir, Mayor Les Stapleton, EKSC founder John Rosenberg, Maurice Henderson, and yours truly, the crowd of almost 100 people unveiled the exhibit.

As of this writing, over 1,000 people have viewed this exhibit since it first opened. The exhibit will be here at the EKSC through September 16th.

Old Maps

From *The Constellation*, Spring 1992, Vol. XXII, No. 1

President: Steve Mitch, President Elect: Joyce Towne, Past President: Tom Stec, Secretary: Sam Storch, Treasurer: Steve Russo, Editor: Don Knapp

Board Members: Jon Bell, Lee Ann Hennig, Fred Stutz.

Pittsburg Site of Spring Conference was the headline of the Spring 1992 Constellation. The accompanying article discusses the upcoming meeting on April 29—May 2 at the Carnegie Science Center and the Henry Buhl, Jr. Planetarium and Observatory. The Buhl's 50' dome housed a Digistar star projector and a Spice automation system controlled multiple video projectors integrated into an audience interaction system so that audience members could all participate in the programming.

A dinner cruise was planned aboard the Gateway Clipper's *Liberty Bell* after a tour of the old Buhl Planetarium with an exhibit of the Zeiss II star projector there. In addition to the usual gamut of speakers, workshops, and paper presentations, conference attendees would have time to explore Pittsburg, the Carnegie Science Center, and take a special tour of the Allegheny Observatory. The conference promised to be bigger and better than ever!

President's Message Steve Mitch begins his note to the membership encouraging them to go to the Pittsburg conference and finishes by asking for someone to host the next year's conference in 1993.

The issue rounded out with several short news items:

- Francine Jackson, Education Committee Chair, reviews some astronomy books for kids, and implored members to share other book resources with the committee to ultimately be shared with the membership.
- This issue was *Constellation* editor Don Knapp's last issue. Here we're introduced to his replacement, our now well-seasoned editor extraordinaire, Kevin Conod!
- The Methacton School District in Norristown, PA renamed their planetarium in honor of its recently deceased director, our esteemed colleague, the late Dr. Gerald Mallon. The MAPS Executive Board also set up a memorial fund in Jerry's name for an annual award or scholarship in his memory.
- Don Hall shared a fine remembrance of Jerry Mallon whom we lost way too soon to AIDS. His thoughtful piece expressed who Jerry was and why he will be sorely missed by both his students and his colleagues.
- Jim Hart, Planetarium Resource Teacher at Garrett County Board of Education, Oakland, MD, described a lesson for 5th grade students utilizing Voyager software and the planetarium. He began the article with this: "Caution: Use of the following activity may cause your fifth grade students to talk, argue, show enthusiasm, exchange ideas, act like astronomers, become interested in the lesson, have fun, even think and (*shudder*) perhaps even learn."
- There were notes about NSTA/NASA Workshops, a Maryland Planetarians Meeting, a new Regional group in New Jersey, a Production Techniques Seminar at the Stassenburgh Planetarium in Rochester, NY, and finally an astronomy trip to England with Dr. George Reed (*that's one trip I wish I had been on*).
- The issue ends with a short piece from Science News 5-11-91 about Wine Glasses and what they're doing when you make them "sing" with your finger. An article submitted by Sam Storch.

In the time it took the light to travel from Fomalhaut to your eyes, these stories surfaced from the past to the present. 'Til next time when we time travel again . . .

John T. Meader, MAPS Archivist/Historian Northern Stars Planetarium, 15 Western Ave., Fairfield, Maine 04937
207-453-7668 jtmeader@myfairpoint.net, www.northern-stars.com

NASA Unveils New Searchable Video, Audio and Imagery Library for the Public

NASA officially has launched a new resource to help the public search and download out-of-this-world images, videos and audio files by keyword and metadata searches from NASA.gov. The NASA Image and Video Library website consolidates imagery spread across more than 60 collections into one searchable location.

<https://images.nasa.gov>



NASA Image and Video Library allows users to search, discover and download a treasure trove of more than 140,000 NASA images, videos and audio files from across the agency's many missions in aeronautics, astrophysics, Earth science, human spaceflight, and more. Users now can embed content in their own sites and choose from multiple resolutions to download. The website also displays the metadata associated with images.

Users can browse the agency's most recently uploaded files, as well as discover historic and the most popularly searched images, audio files and videos. Other features include:

- Automatically scales the interface for mobile phones and tablets
- Displays the EXIF/camera data that includes exposure, lens used, and other information, when available from the original image
- Allows for easy public access to high resolution files
- All video includes a downloadable caption file

NASA Image and Video Library's Application Programmers Interface (API) allows automation of imagery uploads for NASA, and gives members of the public the ability to embed content in their own sites and applications. This public site runs on NASA's cloud native "infrastructure-as-a-code" technology enabling on-demand use in the cloud.

The library is not comprehensive, but rather provides the best of what NASA makes publicly available from a single point of presence on the web. Additionally, it is a living website, where new and archival images, video and audio files continually will be added.



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