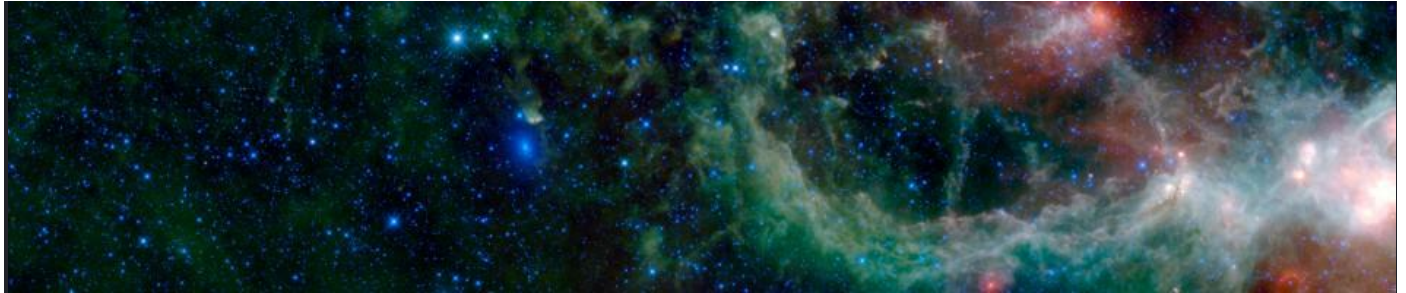


# Charlottesville Astronomical Society

"Promoting the Enjoyment of Observing and Learning for All"

## *Astro-OP* **Educator-NEWS**

2013:09:16



## ***Welcome to our First Edition of Astro-OP **E-News***** ***... created especially for **Educators!*****

Dear Educator,  
Each month the Charlottesville Astronomical Society (CAS) plans to email Astro-OP E-News to educators in nine counties within the greater Charlottesville area. We hope that you'll enjoy our astronomy articles and news tidbits along with our calendars of activities, events, upcoming meetings, and conventions, interesting links and astronomy resources for Educators and Students, your questions with response's from CAS' very own, Astro-Wiz, and astronomy activities, events, projects, and trips for you and your students.

Think of CAS and E-News as resources that support educator and student learning, teaching, and observing expe-

riences. E-News was created in conjunction with our CAS Astro-OP (Astronomy Outreach Program) for educators to help promote an increased awareness of astronomy, specifically, and the sciences, in general, among students in the greater Charlottesville area.

In this past week, we have met with educators from schools in Albemarle, Fluvanna, and Greene counties to offer the resources of the CAS Astro-OP (Astronomy Outreach Program) project. If you or your school is interested in hearing more about CAS Astro-OP, contact us on our website:

<http://cvilleastro.com/>

or email:

[fred.repich@gmail.com](mailto:fred.repich@gmail.com)

Next year, in March of 2014, CAS will be sponsoring the Physics and Astronomy category in the Virginia Piedmont Regional Science Fair (VPRSF). Naturally, we would be happy if your students were encouraged to enter projects in the 2014 VPRSF – and thrilled if their projects were in the Astronomy and Physics category.

Your support is essential to the success of the CAS' mission as stated in our masthead, "Promoting the enjoyment of observing and learning for all".

*Fritz (Fred) Repich,*  
*CAS Astro-OP Coordinator,*  
*E-News Editor*

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## *In this Issue*

This first edition of E-News provides you with the CAS Calendar – a listing of the coming month’s astronomical activities, events, and functions. If you want to build a telescope, register for the CAS Telescope Kit Building Workshop on Sunday, October 13<sup>th</sup> at the McCormick Observatory from 1:30 to 4:00 PM. Details are provided in the Telescope Kit Poster. Each month, on the first Wednesday evening from 6:45 PM to approximately 8:30 PM, CAS conducts its monthly meeting for members and guests at the McCormick Observatory on the UVA campus in Charlottesville. Come on down and check us out, if you are a science educator your membership is free. Each month we have a guest speaker – this month it’s Dr. Arthur Lichtenberger, Director of the University of Virginia Microfabrication Laboratory.

## *Calendar*

• **Sat, Oct 12** – International Observe the Moon Night  
<http://www.observethemoonnight.org/>

• **Sun, Oct 13** – Astronomy Day Telescope Kit Build at McCormick Observatory – Registration Required from 1:00 – 4:30 pm

• **Fri, Nov 29** – Heidi’s Night – Educational Activities and Observing from 7 – 9 pm

• **Fri, Dec 6** – Ivy Creek, Star Party 7:00 – 9:00 pm

• **Fri, Oct 25** – UVA Fan Mt. Open House (Tickets Required)

### **Getting Tickets**

Ticket Requests are only accepted at certain times of the year. Requests must be accompanied by a self addressed, stamped envelope or tickets cannot be sent. You must also list the number of tickets needed (up to six (6)). Individual groups larger than six (6) cannot be accommodated.

**Friends of the Leander McCormick Observatory** do not need tickets for Fan Mountain Public Nights, simply bring your membership card with you.

### **When to Request Tickets**

• For the **April Fan Mt Public Night**, send requests starting March 1<sup>st</sup> (the supply of tickets is usu-

ally exhausted by the 3<sup>rd</sup> week of March).

• For the **October Fan Mt Public Night**, send requests starting September 1st (the supply of tickets is usually exhausted by the 3<sup>rd</sup> week of September).

Tickets will be mailed out 2-3 weeks prior to the public night, on a first come, first served basis until the supply is exhausted. Again, only requests with a self-address stamped envelope and a number (up to 6) of tickets requested can be accommodated. Send a self-addressed, stamped envelope, along with the number of tickets requested (up to 6), to:

**Fan Mountain Public Night**  
**P.O. Box 400325**  
**Charlottesville, VA 22904-04325**

## *Meetings*

**Oct 2, 2013 Charlottesville Astronomical Society, Monthly Meeting 6:45 PM**



Our speaker this month, Dr Arthur Lichtenberger received the B.A.

degree in Physics from Amherst College in 1980, and the M.S. and Ph.D. degrees in Electrical Engineering in 1985 and 1987 respectively from the University of Virgin-

ia. Dr Lichtenberger has served on the faculty since 1987 and is presently Director of the University of Virginia Microfabrication Laboratory (UVMML). He has published over 55 technical articles and is a member of the International Union of Radio Science, Eta Kappa Nu, Sigma Xi, and Tau Beta Pi.

**Oct 5, 2013 Virginia Association of Astronomical Societies (VAAS) Annual VAAS Meeting**

The Northern Virginia Astronomy Club (NOVAC) will be hosting the 2013 annual meeting of the Virginia Association of Astronomical Societies (VAAS) this fall. It will be held on Saturday October 5th at C. M. Crockett Park near Warrenton, VA and will coincide with our big fall public Star Gaze event there. This will be a free event for all members of the invited astronomy clubs.

The VAAS portion of the day will begin early at 8:30 AM. After a light breakfast for attendees, we will have several presentations in our large tent running up to a catered lunch around noon. During the daylight hours members can enjoy safe solar viewing and at night you can set up your equipment by your cars on the large observing field.

VAAS attendees are welcome to stay for our afternoon to evening Star Gaze beginning at 3 PM when we will have more presentations and demonstrations.

This is just a preliminary note to confirm contact information for the member clubs to make sure we can reach you when the formal invitations are sent out next month. I would appreciate it if you would reply back to me so that I have an idea of what is working and what isn't. Please also let me know of any updated contact information about your club that you think would be useful.

As mentioned, I will be sending out invitations to all the clubs next month. That will provide links to our web site where you can register for the event. As mentioned, this is a free event but registration will help us get a better idea of the expected numbers when planning how to feed the masses!

Regards,  
David Werth  
NOVAC  
VAAS & Star Gaze 2013,  
Coordinator  
[www.novac.com](http://www.novac.com)

**Nov 6, 2013 Charlottesville Astronomical Society, Monthly Meeting 6:45 PM**

The speaker this month, Tom Field, will present a video lecture from Seattle, WA on Real Time Spectroscopy. A colorful spectrum can rightly be called a “**fingerprint of a star.**” Spectra reveal the composition, temperature, and movement of



stars. In the past, only professionals had the skill and equipment to study spectra. Recently, the cost and complexity of the necessary hardware and software has dropped enormously. Today, you can easily study the spectra of stars and planets with a minimum of expense. If you have a telescope and a CCD camera (even a webcam or DSLR), then all you need is an inexpensive Star Analyser grating and the RSpec software. It's an exciting pursuit. We invite you to join the growing number of amateur astronomers who have discovered the thrilling adventure of spectroscopy!

## ***Events***

The University of Virginia's Astronomy Department will be hosting its Fall Open House at Fan Mountain Observatory on Friday, October 25 from dusk (about 8 pm) until about 11:30 pm. All club members are invited to bring their telescopes, binoculars and any astronomical knowledge to share with the public. Public attendees need to request free tickets by sending a self-addressed stamped envelope to the University of Virginia Astronomy Department. Tickets typically run out about a month before the event so public attendees need to get their request in early.



## ***About CAS***

The Charlottesville Astronomical Society is an organization, founded to promote the enjoyment of observing the stars and planets. CAS caters to individuals of all ages and levels of astronomical experience. We wish to interest the public in astronomy through naked-eye, telescopic, and binocular viewing as well as through talks our organization sponsors.

We feel our Society has much to offer in information and activities for budding amateur astronomers as well as those who are simply curious about space. But, most of all, we try



to make astronomy a thrilling experience for everyone.

We are fortunate to live in an area that can boast of relatively dark nights and where the Milky Way can still be seen just outside of Charlottesville. Join us as we explore the universe together!

Regular Meetings are held at historic University of Virginia's McCormick Observatory on the first Wednesday of each month from 6:45pm to about 9:00 pm. We typically have a guest speaker each month that provide presentations on variety of astronomical topics from cosmology to observing techniques. On clear nights, we offer attendees an opportunity to observe with the 26" Leander McCormick Telescope. Other public events are also often scheduled. Anyone with an interest in astronomy, experienced pros or beginning amateurs, families and visitors are all welcome.

## ***Astronomy Links***

**Charlottesville Astronomical Society** : <http://cvilleastro.com/>

**NASA Educator Resources** <http://www.nasawavelength.org/>

**Star Size Comparison Video:** <http://www.youtube.com/watch?v=HEeh1BH34Q>

**NASA Science – Citizen Science:** <http://science.nasa.gov/citizen-scientists/>

**Heavens Above:** <http://www.heavens-above.com/>

**Lowell Observatory:** <http://www.lowell.edu/>

**UA Lunar and Planetary Sciences:** <http://www.lpl.arizona.edu/>

**Planetary Science Institute:** <http://www.psi.edu/>

**Mount Graham International Observatory:** <http://mgpc3.as.arizona.edu/>

**Lunar and Planetary Institute:** <http://www.lpi.usra.edu/>

**Kitt Peak National Observatory:** <http://www.noao.edu/kpno/>

**Kansas Comosphere and Space Center:** <http://www.cosmo.org/>

**Clear Sky Chart Home Page:** <http://cleardarksky.com/csk/>

**US Naval Observatory:** <http://www.usno.navy.mil/USNO/astronomical-applications>

**Citizen Science Alliance:** <http://www.citizensciencealliance.org/>

***and . . . The AIAA Foundation wants to help you make science, technology, engineering, and math (STEM) become real in your classroom.***

**AIAA Foundation Classroom Grant Program:**

<http://www.aiaa.org/Secondary.aspx?id=4184&terms=grants%20to%20schools>

# Astronomy Day

**Sunday, October 13, 2013**

**1:00 – 4:30 pm**

**McCormick Observatory, UVA**

## Build a Telescope

**Sponsored by**



**A family activity for a parent and  
student grade 4 – 12**

**\$50 covers the cost of a**

**114 mm, f/4.5 Newtonian telescope and materials**

>> The event is limited to 12 student/parent pairs <<

Contact Steve Layman at [slayman2528@comcast.net](mailto:slayman2528@comcast.net)

for more information or to register