



The Night Sky

The Newsletter of
The Astronomy Club of Akron
www.acaoh.org

Volume 40 Number 1

January 2018

Next Meeting: Friday - January 26, 2018 - 8:00 PM - New Franklin

The Presidents Column

By Cathy Loboda

As the snow is falling and temperatures are registered far below the season's norm, my heart longs for those summer sunsets when I sat with a refreshing drink and patiently waited. I waited for the sun to reach the horizon...I waited for the moment the sun would disappear beneath the horizon...and I anxiously awaited to see if the sunset would gift me with color- the brilliance of color that is seen when the sun's rays are reflected off particles in the atmosphere. I always thought it odd when those enjoying the sunset would pick up and leave as soon as the sun dipped below the horizon. Little did they know what they were missing.

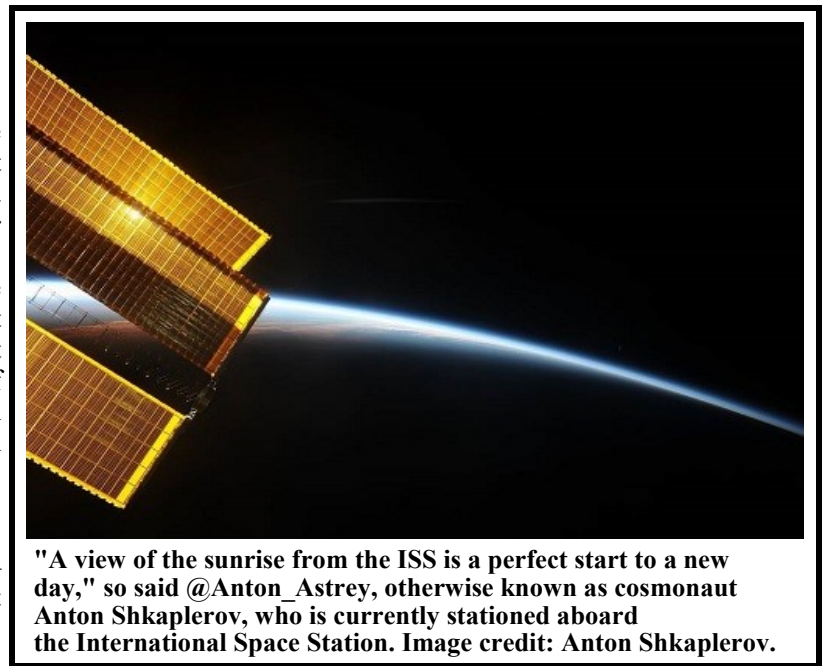
According to the University of Wisconsin – Madison in the ScienceDaily article "What Determines Sky's Colors At Sunrise And Sunset?," the colors of the sunset are the result of scattering. Scattering is the phenomenon of small particles and

molecules in the atmosphere changing the direction of light rays. The size of the particle and the wavelength determines the color produced. So, the beautiful colors of a sunset are never "a given." Also, because blue light is scattered more easily than red light, the Sun takes on a reddish hue when it is observed through a thick atmosphere during sunset.

Now for an added bonus. Have you ever turned away from a sunset and were surprised by the color on the opposing horizon? I have enjoyed this so many times, but have not understood the effects until reading Stephen James O'Meara's article "Earth's 'Shadow Bands'" in the February issue of Astronomy.

Observing the effects of the earth's shadow is noted as "a brief twilight phenomenon." O'Meara describes the subtle effects the earth's shadow creates on the atmosphere as it is projected during sunsets as a physiological wonder. The wonder is founded in the single visual play of colors and intensities. The dark sapphire blue band created by earth's shadow blends into a pink arch, called the Belt of Venus. The Belt of Venus is the wedge of reddened sunlight that is backscattered to the observer's eyes and is described as having an alpine glow. If you were to experience this twilight phenomenon from an airplane flying at 35,000 feet, earth's shadow stands out boldly and the "color gradations are deeper and clearly defined." If you have not taken the opportunity to experience a sunset to its fullest extent, there is much to look forward to as winter wanes and the warmer days of spring follow. In this context, let's hope time flies!

Article By Cathy Loboda
ACA President



"A view of the sunrise from the ISS is a perfect start to a new day," so said @Anton_Astrey, otherwise known as cosmonaut Anton Shkaplerov, who is currently stationed aboard the International Space Station. Image credit: Anton Shkaplerov.

OFFICERS 2016 – 2018

President

Cathy Loboda
Phone: 330-655-2923 E-mail: cnloboda@aol.com

Vice President

Dave Jessie
Phone: 330-688-9043 E-mail: DJessie@neo.rr.com

Treasurer

Nick Mihiylov
Phone: E-mail: nmihylov@aol.com

Secretary

Lew Snodgrass
Phone: 330-867-4800 E-mail: CHRPLY@aol.com

Assistant Secretary/Treasurer

Ann Ferrell
Phone: 330-697-7279 E-mail: annhagemaster@gmail.com

Observatory Director

Ron Kalinoski
Phone: 330-837-5848

ACA Webmaster

Dave Jessie
Phone: 330-688-9043 E-mail: DJessie@neo.rr.com

Publications Secretary - Editor, Night Sky Newsletter

Marissa Fanady
Phone: 330-531-2443 E-mail: speedymissy@yahoo.com

Trustee

Fred Huffman
E-mail: trusstube2@gmail.com

Trustee

Gregg Crenshaw
E-mail: rigelstarman@gmail.com

Trustee

Statutory Agent

Mark Kochheiser
Phone: 330-882-3713 E-mail: mkochheiser@neo.rr.com

OTAA Representative

Lou Poda

November Treasurer's Report

By Nick Mihiylov

11/1/2017 Through 11/30/2017

Checking Beginning Balance	\$1,514.32
----------------------------	------------

Income

Membership and Donations	170.00
--------------------------	--------

Total Income	\$170.00
---------------------	-----------------

Expenses

Speaker and Guest Dinner	-23.76
--------------------------	--------

Total Expenses	-23.76
-----------------------	---------------

Income Less Expenses	\$146.24
-----------------------------	-----------------

Checking Ending Balance	\$1,660.56
-------------------------	------------

Savings Beginning Balance	\$2,566.56
---------------------------	------------

Earned Interest	0.04
-----------------	------

Savings Ending Balance	\$2,566.60
------------------------	------------

Petty Cash Beginning Balance	\$50.00
------------------------------	---------

	0.00
--	------

Petty Cash Ending Balance	\$50.00
---------------------------	---------

Petty Cash	50.00
------------	-------

Savings	2,566.60
---------	----------

Checking	1,660.56
----------	----------

Grand Total	\$4,277.16
--------------------	-------------------

Article by Nick Mihiylov
ACA Treasurer.

OFFICERS 2016 – 2018

President

Cathy Loboda
Phone: 330-655-2923 E-mail: cnloboda@aol.com

Vice President

Dave Jessie
Phone: 330-688-9043 E-mail: DJessie@neo.rr.com

Treasurer

Nick Mihiylov
Phone: E-mail: nmihylov@aol.com

Secretary

Lew Snodgrass
Phone: 330-867-4800 E-mail: CHRPLY@aol.com

Assistant Secretary/Treasurer

Ann Ferrell
Phone: 330-697-7279 E-mail: annhagemaster@gmail.com

Observatory Director

Ron Kalinoski
Phone: 330-837-5848

ACA Webmaster

Dave Jessie
Phone: 330-688-9043 E-mail: DJessie@neo.rr.com

Publications Secretary - Editor, Night Sky Newsletter

Marissa Fanady
Phone: 330-531-2443 E-mail: speedymissy@yahoo.com

Trustee

Fred Huffman
E-mail: trusstube2@gmail.com

Trustee

Gregg Crenshaw
E-mail: rigelstarman@gmail.com

Trustee

Statutory Agent

Mark Kochheiser
Phone: 330-882-3713 E-mail: mkochheiser@neo.rr.com

OTAA Representative

Lou Poda

December Treasurer's Report

By Nick Mihiylov

12/1/2017 Through 12/31/2017

Checking Beginning Balance	\$1,660.56
Income	
Membership	30.18
Total Income	\$30.18
Expenses	
	-0.00
Total Expenses	-0.00
Income Less Expenses	\$30.18
Checking Ending Balance	\$1,690.74
<hr/>	
Savings Beginning Balance	\$2,566.60
Earned Interest	0.04
Savings Ending Balance	\$2,566.64
<hr/>	
Petty Cash Beginning Balance	\$50.00
	0.00
Petty Cash Ending Balance	\$50.00
<hr/>	
Petty Cash	50.00
Savings	2,566.64
Checking	1,690.74
Grand Total	\$4,307.38

Article by Nick Mihiylov
ACA Treasurer.

SWAP & SHOP



FOR SALE:

Orion Sirius 40mm Plossl

Asking: \$25

Contact: Glenn Cameron

Phone: 330-737-1472

Email: glenn@cameronclan.org

FOR SALE:



Televue Radian 12 mm Eyepiece

- Excellent condition.

Asking: \$180 (cash)

Contact: Fred Fry

Email:

riverfry@gmail.com

FOR SALE:



Televue Radian 18 mm Eyepiece

- Excellent condition.

Asking: \$180 (cash)

Contact: Fred Fry

Email:

riverfry@gmail.com

FOR SALE:

Celestron CPC Deluxe 800 HD Telescope with tripod.

Accessories:

- Celestron 1.25" eyepiece and filter kit.
- Tele Vue nebula filter.
- Celestron UHC/LPR filter.
- Celestron 15mm 1.25" 82 degree wide field eyepiece.
- Stellarvue 1.25" Dielectric Diagonal.
- Stellarvue 1.25" erecting prism.
- Celestron power tank and dew shield.
- Astrozap sun filter.
- Celestron AC adaptor.
- JMI custom hard shell case for telescope.

All 8 months old, brand new condition.

Asking: \$2200

Contact: Jim Hall

Phone: 330-268-8695

FOR SALE:



Pentax XW 20mm Eyepiece

- Excellent condition.
- Small mark on 1.25" barrel.
- Always used in a compression clamp.

Asking: \$220 (cash)

Contact: Fred Fry

Email: riverfry@gmail.com

FOR SALE:

Celestron NexStar 8i computerized to go 8" F/10 Schmidt-Cassegrain

Focal length 2032 mm with 406x highest useful power.

Includes:

- GPS module.
- Five multicoated Plössl eyepieces.
- 2X Barlow lense.
- Seven filters.
- A/C adaptor.
- Night vision flash.
- Celestron star pointer.

All rarely used and in new condition.

Cost \$1,689 new.

Asking: Best Offer

Contact: Nick Bade

Email: nb@tribco.com

Phone: 216-486-2000 weekdays and

440-585-8687 evenings and

weekends.

Advertise in the Swap n Shop!

Send a picture of
your **ASTRONOMY
RELATED** item and
relevant information
to the newsletter
editor:

speedymissy@yahoo.com

ACA Meeting Minutes November 17, 2017

Venue: New Franklin Township Hall.

Attendance: 30.

Guest speaker: 8:02 Dave Jessie introduces our guest speaker Dave Richards of the Hoover-Price Planetarium (In Canton). Subject: "Comets, Clouds, Craters and Collisions."

Break at 8:58.

Business meeting: Called to order at 9:06.

Vice President: Dave Jessie mentioned that the KSU Planetarium would present "Skies of Winter on December 1st and 2nd you must RSVP.

Treasurer's Report: Nick was absent, Lew gave the report.

Secretary's Report: Lew read the minutes from October's meeting.

Old business: Support Stem Career, vote was taken and accepted.

New business: Winter Social, discussion and a voice vote was taken, Winter Social, at the Galaxy, 12 Noon, Sun. Jan. 28th.

Observatory report: Ron is working on the 2018 Star Party schedule. Note: Mars in opposition in late July. Observatory budget will be available in early January 2018.

Note: The Quarterly Newsletter will be available in January of 2018.

Adjourned: at 9:40 by voice vote.

*Lew Snodgrass
ACA Secretary*

January 26, 2018 - General Membership Meeting

Speaker: Jodi & Roy McCullough.

Presentation: "How Do We Know?" How does science appear to know the impossible, such as the radius and mass of the Earth, distance to the stars and composition of the stars... ???

About Our Speaker: Jodi is the President of MVAS (Mahoning Valley Astronomical Society) and teaches a night class in Astronomy at the University of Mount Union. Roy teaches physics at the University of Mount Union.

Meeting Location:

**New Franklin City Hall
5611 Manchester Road
Akron, OH 44319**

Please note that we ALWAYS encourage the public to attend ANY of our events, including meetings. Come and enjoy the lecture and talk to us about astronomy!

Marketing the Universe to our kids!

By Marnie Sanders

After our last meeting in November, several of us were discussing ways to increase interest in exploring our universe within the kid population. That evening, I had received a catalog among the hundreds sent in the "buying" season, that included an "Astronomy Kit" for the American Girl doll. So, slightly amused, I emailed the advertisement to a few of the folks in that earlier discussion, noting that kid toys and kits were an excellent "spark" in the 50's and 60's when we were all kids. American Girl had the right idea! The chart in the doll's astronomy kit, one of those folks noted back to me, even included Pluto, much to his delight.

Well, how many of us received cowboy/cowgirl hats/vests and guns, firemen hats and trucks, police badges and guns, doctor kits, and yes, chemistry and rocket kits and telescopes back then? I slept with my cowgirl vest and hat and planned to be a cowgirl all through elementary school....even planning to marry my 2nd grade boyfriend, Steven, who would wrangle the cows while I trained the horses! AND... I was further so encouraged with my first horse at age 10!! Coco was a riding stable rescue, whose \$100 price at that time was a small fortune for my Dad. What a gift that led to summers raising and harvesting the grain, corn, and hay for his feed and a lifetime of interest in both raising food and training and enjoying horses!

Thank goodness, also, for bi-weekly bookmobile offerings that expanded my exposures beyond "The Black Stallion", "My Friend, Flicka", and "Sky King"-style ranching. When I was finally allowed to select from that 5th grade shelf, I encountered "John Carter, Warlord of Mars" and added another lifetime interest: the Red Planet. And of course, TV, NASA, and space were all the BIG things all through the 60's....just hammering into our kid brains the wonder of our universe! Who doesn't remember rocket shaped tail fins and other styling points on cars in 50's with Oldsmobile's "Rocket 88" dominating the style and in the 60's we had JFK announcing the Space Race, Sputnik, Telstar (which had its own song on radio too!) and of course the 1969 Moon Landing; all the TV shows which included the Jetson's, the first cartoon in space, then came Mork and Mindy, 3rd Rock, Alph, the Sagan lush tour of the Cosmos, ET, Star Wars, etc.....could anyone really have avoided an interest in space during all of this wonderful exposure??

So, we have to get the kids to look up again, away from their hand-held earthbound views.....puckered lips, poses, selfies, ewwww! Even though these devices can access "apps" to locate stars and planets, they too often focus on antics of unknown humans, sassy comments, silly videos, etc. We have to interest them in their own future in the world and the universe...so much going on with Hubble, Space X, Mars rovers, the James Webb....and on and on!

This week, American Girl just sent another catalog featuring 2018 Girl of the Year: "Luciana Vega" explorer to Mars! She has a space suit, a mars habitat, a NASA visitor center kit, and more! Here is the link or google American Girl and Luciana: <http://www.americangirl.com/shop/ag/girl-of-the-year-luciana#facet:&productBeginIndex:0&orderBy:&pageView:grid&minPrice:&maxPrice:&pageSize:&contentPageSize:&>

I think American Girl is on to something, and while I may not be able to afford this for my 6 year old granddaughter, I am certainly going to find a way to get her the catalog to show to her other more well-to-do grandma, who loves dolls and spending money. This child is a bit of a thinker already, an appreciative observer of the Moon and bigger planets thanks to us, and who knows..... So somebody ought to get busy creating something to market interest to the boys out there! Hmmmmmm, maybe all those war and gun games need some competition with some exciting Space exploration video games.....

*Article By ACA Member,
Marnie Sanders*

ACA News and Notes **January 2018**

ACA Meetings

The next ACA membership meeting is scheduled for 8:00 p.m. on January 26th at New Franklin City Hall. This month's presenters Jodi and Roy McCullough will speak on "How Do We Know?" The presentation will inquire how science appears to know the impossible, such as the radius and mass of the Earth and distance to and composition of the stars.

May Elections

A new slate of officers is being prepared for the April 2018 elections. Nominating committee members Ron Kalinoski, Fred Huffman, and Ann Ferrell are asking members who are willing to serve ACA in this important capacity to please contact them. The slate must be presented to members at the March meeting. Voting takes place during the April meeting and our new officers begin their term on May 1st. Please consider serving as ACA celebrates its 69th year!

Members Social

ACA members are invited to our Winter Brunch Social at Galaxy Restaurant on Sunday, January 28th at 12:30 p.m. Please RSVP to President Cathy Loboda at cnloboda@aol.com before January 24th if you plan to attend.

January Astronomical Events

Day Hour(UT)

1 20 Mercury greatest elong. W. (23°)
1 22 Moon at perigee
2 02 FULL MOON
2 21 Uranus stationary
3 06 Earth at perihelion
5 08 Regulus $0^\circ.9$ S. of Moon Occn.
7 04 Mars $0^\circ.2$ S. of Jupiter
8 22 LAST QUARTER
9 07 Venus in superior conjunction
9 10 Pluto in conjunction with Sun
11 06 Jupiter 4° S. of Moon
11 10 Mars 5° S. of Moon
12 04 Vesta $0^\circ.4$ N. of Moon Occn.
13 07 Mercury $0^\circ.6$ S. of Saturn
15 02 Moon at apogee
15 02 Saturn 3° S. of Moon
15 07 Mercury 3° S. of Moon
17 02 NEW MOON
20 20 Neptune $1^\circ.6$ N. of Moon
24 01 Uranus 5° N. of Moon
24 22 FIRST QUARTER
27 11 Aldebaran $0^\circ.7$ S. of Moon Occn.
30 10 Moon at perigee
31 13 Ceres at opposition
31 13 FULL MOON Eclipse

February Astronomical Events

Day Hour(UT)

1 19 Regulus $1^\circ.0$ S. of Moon Occn.
7 16 LAST QUARTER
7 20 Jupiter 4° S. of Moon
9 05 Mars 4° S. of Moon
9 13 Vesta $0^\circ.9$ N. of Moon Occn.
10 15 Mars 5° N. of Antares
11 14 Moon at apogee
11 15 Saturn 2° S. of Moon
14 11 Juno in conjunction with Sun
15 21 NEW MOON Eclipse
17 12 Mercury in superior conjunction
20 08 Uranus 5° N. of Moon
23 08 FIRST QUARTER
23 18 Aldebaran $0^\circ.7$ S. of Moon Occn.
27 15 Moon at perigee

*Information Credited,
Her Majesty's Nautical Almanac Office,
United Kingdom Hydrographic Office.
US Naval Observatory.*

The Night Sky

Newsletter of the Astronomy Club of Akron

c/o Marissa Fanady, Editor

1134 North Ave.

Tallmadge OH, 44278

The Astronomy Club of Akron

c/o Nick Mihiylov

13495 Mogadore Avenue NW

Uniontown, Ohio 44685-9347

Yes! I want to become a member of the Astronomy Club of Akron

www.acaoh.org

(PLEASE PRINT)

NAME: _____ PHONE: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

EMAIL ADDRESS: _____

Astronomy Club of Akron annual memberships renew in the month of September.

ADULT (ages 18 and older) ___\$30.00

JUNIOR (ages 12 to 17) _____\$15.00

ADDITIONAL ADULT member ___\$15.00

FAMILY MEMBERSHIP _____\$40.00

Visit us on the Web at www.acaoh.org,