

*** CAS ***

Charlottesville Astronomical Society Monthly Meeting



May 4, 2016

Agenda

- Welcome ~ New Members and Guests
- Guest Speaker, UVA Grad Student Nicholas Troup
- Club Business
- Member Activities
- Outreach Activities
- Recognition and Awards
- Questions and Comments?
- Door Prize Drawing
- Final Thoughts





WELCOME!

NEW MEMBERS AND GUESTS

- New Members
 - Todd Bunger
 - Penny Dudley
- Guests?

Guest Speaker Nicholas Troup

“Combing the Brown Dwarf Desert with APOGEE”

- Fourth Year UVA Graduate Student working with Steve Majewski on APOGEE
- Nicholas met his Wife, Chrissy while doing his Undergraduate work at the University of Delaware - *they've been married for the past 3-1/2 years*
- Nicholas is active in UVA's Astronomy Department Outreach Programs – in particular, both the Fan Mountain and McCormick Observatory Public Nights and the Dark Skies Bright Kids Program
- Besides Astronomy, Nicholas enjoys ripping apart bad Sci-Fi, Choral Singing, Acting, and Playing the Tuba



Club Business



Financial and Membership Status

May 1, 2016

- CAS Checking Account Balance : \$5,546.24
- Uncleared Checks : \$0.00
- Net Balance : \$5,546.24
- Petty Cash : \$109.00
- **Total CAS Cash Assets :** \$5,655.24
- **3 New Members:** Todd Bunger, Penny Dudley
- CAS Memberships:
 - Individual 26
 - Family 13
 - Senior 35
 - Student/Military 2
 - Educators 9
 - # of Memberships 85
 - **Total Members* 98** (* Includes one additional person per family membership)

Michael Hegedus, CAS Treasurer

May 1, 2016

A stylized, low-poly mountain range graphic in shades of brown and tan, positioned at the bottom of the slide against a blue gradient background.

Membership Benefits

- ***Club Observing at Private and Restricted Dark Sky Sites***
- ***Club Retreats and Special Events (e.g. 8/21/2017 solar eclipse)***
- ***Club Field Trips***
- ***Club Social Events***
 - *Family Day: Monthly Mtg at JMU's John C. Wells Planetarium (Sun. June 5th at 2 PM)*
 - *Family Picnic at Fan Mt. (August 6, 2016)*
 - *Christmas Party (7-11 PM, December 9, 2016)*
- ***Club Mentoring, Training, and Certification Program***
 - *26" Clark Refractor Operator and "Dog House" Training & Certification*
 - *New/Novice Member Mentoring Program (e.g., the purchase and use of astronomical telescopes, celestial navigation, how to read star charts, how to locate/identify galaxies, nebulae, and star clusters generally not visible to the naked eye, etc.)*
- ***Club Loaner Equipment***
- ***Club Monthly Meetings and Guest Speakers***
- ***Membership in the Astronomical League***
- ***Membership in the International Dark Sky Association***
- ***Discounts***
 - *Astronomy and Sky and Telescope Magazine Subscriptions (see Mike Hegedus, CAS Treasurer)*



Club Logo Shirts and Hats

(Minimum Order is Six of Any One Item)

Crazy Horse Studio – “Pick Your Own Shirt from their catalogs”

<http://www.crazyhorsestudio.com/>

Item (Royal Blue or Orange <i>or pick your own with pricing tbd</i>)	Member Price
Men's Polo Shirts: S, M, L, XL	\$20.00
Men's Polo Shirts: 2XL, 3XL, 4XL, 5XL, 6XL	\$25.00
Ladies' Polo Shirts: S, M, L, XL, 2XL, 3XL	\$20.00
Watch Cap/Beanie	\$15.00
Baseball Cap	\$20.00

Member Activities

UVA and NRAO Events



UVA/NRAO Colloquia

Date	Time and Location	Host	Name and Institution	Title
Thur, May 5, 2016	4 PM NRAO Aud	UVA	Hilke Schlichting	Crash, Boom, Bang: Giant Impacts & the Formation of Planets at home and abroad
Thur, May 12, 2016	4 PM NRAO Aud	NRAO	Michael Rowan-Robinson	Far infrared and submillimetre surveys, from IRAS to Spitzer-SWIRE and Herschel: A Tribute to Carol Lonsdale



Member Activities

Club Observing and Other Events



“What’s Up”

~ May 2016 ~

- <https://www.youtube.com/watch?v=TQ-qbykREXE>



Astronomy for May 2016

- **May 1st** - Jupiter sits High in the South at 10 PM; Mars Rises at 10:29; Saturn Rises at 10:59 with its Rings well-angled for Observation; Venus is Lost in the Sun's Glare in May
- **May 2nd** - Neptune Appears only Half a Degree Below the Waning Crescent Moon; You will need Binoculars to see the Faintly Blue Disc of Neptune at Magnitude 7.92
- **May 5th Night and May 6th Morning** - Eta Aquarid Meteor Shower Peaks (Debris Trail from Halley's Comet), Producing up to 30 Meteors/Hr, Traveling 148,000 MPH; (*Eta Aquarid meteors are often seen as "Earthgrazers," - long meteors that appear to skim the surface of the earth at the horizon*)
- **May 9th** - Transit of Mercury Across the Sun at McCormick Observatory, 9 AM - 2:42 PM: CAS Solar Filter-Equipped Member Telescopes Available for Observations
- **May 14th** - Jupiter and the Waxing Gibbous Moon are within 4 Degrees
- **May 21st and 22nd** - Full Moon, Mars, and Saturn Travel Together Across the Night Sky



8 Club Observing Sites

- **CAS Member Residential Sites**
 - Susan Bender's Farm
 - Rich Drumm's Farm (Lombardi Observatory)
- **Public Site**
 - John Avellone's Skyline Drive Observatory
- **Restricted Sites**
 - Leander McCormick Observatory – *Rich Drumm*
 - Fan Mountain Observatory – *Rich Drumm*
 - The Market at Grelen – *Scott Duresky*
- **Overnight Retreat Sites**
 - Fan Mountain - *Rich Drumm*
 - Highland County (Pending) – *Scott Duresky*



Club Observing

- Many Good May Dates: Friday May 6th, Friday May 13th, and Sunday May 29th (Memorial Day Weekend)
 - **New Moon, 5/6** - Rises 6:19 AM, Sets 8:09 PM; Meridian Passing 1:10 PM
 - **1st Qtr, 5/13** – Rises 12:49 PM, Sets 2:22 AM 5/14; Meridian Passing 7:39 PM
 - **3rd Qtr, 5/29** – Rises 1:38 AM, Set 1:12 PM, Meridian Passing 7:22 AM
- Watch the Weather for *Clear Skies with Good Seeing*



New Club Observing Strategy

Observe Decision: Susan Bender or Rich Drumm

- **Watch the Weather - *Clear Skies with Good Seeing***
 - When the Weather Looks Good with Clear Skies – Rich or Susan will issue a Club Observation Alert via CvilleAstro Yahoo email, stating where and when to meet for Club Observing, Novice/New Member Mentoring, etc.
- **Key: Maintain a Personal State of Observational Readiness**

***“Be Prepared to Suit Up and Go
at a Moment’s Notice”***



Member Activities

*Monthly Meetings, Field Trips, Retreats,
and Special Events*



2016-7 Monthly Meetings

- Jun 5, 2016, JMU – CAS Family Day, Sunday - 2 PM, JMU's John C. Wells Planetarium
- July 6, 2016, LMO – Sabrina Stierwalt, Ph.D, UVA Research Associate, Astrophysicist NRAO, “ALMA Telescope, Chile” or “About Galaxy Mergers”
- Aug 3, 2016, LMO – Roland Beard, Astronomy Missionary “Promoting the Enjoyment of Observation and Learning in the Phillipines”
- Sep 7, 2016, LMO – Robin Garrod, Ph.D, UVA Assistant Professor of Chemistry
- Oct 5, 2016, LMO – Alan Howard, Ph.D, UVA Professor Geosciences
- Nov 2, 2016, LMO – Ken Seidelmann, Ph.D, UVA Research Professor
- Dec 7, 2016, LMO – Anne Verbiscer, Ph.D, UVA Research Associate Professor
- Jan 4, 2017 – Dec 2017, at LMO, NRAO, and JMU – TBD, Speakers Sought



Astronomy Apps

~ Show and Tell ~

- **Stellarium** – Free Steve Layman, Larry Saunders
- **Celestia** – Free
- **Starry Night (Apple or PC) ???**
- **Starry Night Complete Space & Astronomy Package \$49.95**
 - **Starry Night Enthusiast 7 \$79.95**
 - **Starry Night Pro 7 \$149.95**
 - **Starry Night Pro Plus \$249.95**
- **SkySafari Apple Rich Drum**
 - **SkySafari 5 – \$2.99**
 - **SkySafari 5 Plus –\$14.99**
 - **SkySafari 5 Pro –\$39.99**
- **SkySafari Android ???**
 - **SkySafari 4: Astronomy & Space - \$2.99,**
 - **SkySafari 4 Plus: Stargazing - \$14.99**
 - **SkySafari 4 Pro Astronomy - \$39.99**



Field Trips ~ Still Pending

- Green Bank, WV, NRAO, September 23rd – 27th (tbd); *in conjunction with a weekend Highland County, Dark-Sky Stargazing Event*



Annual Club Retreat(s)

- **2016 Annual Club Retreat**
 - Fan Mountain
 - Friday evening July 29th to Sunday morning, July 31st
- **Spring 2017 Club Retreat (New Moon - March 27, 2017)**
 - *Messier Marathon Retreat at Fan Mountain, in planning process. (Need volunteers for Messier Marathon Planning Committee, no experience needed.)*
- **Sumer Club Retreat**
 - Fan Mountain
 - Friday evening to Sunday morning, dates TBD
- **Highland County Dark-Sky Star Gazing Weekend**
 - Friday evening to Sunday/Tuesday Morning, in the Fall, 2017 pending results of this year's event



2016-17 Special Events

- **JMU Planetarium Family Day, Sun, Jun 5th, 2-5 PM**
- **Summer Club Member Retreat at Fan Mountain, Covesville, VA**
 - Fan Mountain (*Directions: Coming from Charlottesville, South on US 29 for approximately 13 miles (after the I-64 overpass), turn left at Covesville Lane/Fan Mountain Road and proceed for three to four miles to the observatory*)
 - Friday evening July 29th to Sunday morning, July 31st
 - If Interested Respond to Me via email
- **Club Member Family Picnic & Observing, Sat, Aug 6th, 6-11PM**
 - Fan Mountain
 - Friday evening July 29th to Sunday morning, July 31st
 - If Interested Respond to Me via email
- **Highland County Dark-Sky Club Star Gazing Event, September 23rd – 27th, 2016**
 - Location and Housing (sleep-over) arrangements currently being planned
 - Friday evening September 23rd to Sunday morning, September 25th (extended to Tuesday morning, September 27th if weather is bad)
 - If possible, a Field Trip to NRAO Greenbank, WV will be planned for Saturday morning/afternoon)
- **Christmas Party, Fri, Dec 9th, 7 - 9 PM, Restaurant / McCormick / House-Party TBD**
- **Solar Eclipse – August 19th through 22nd, 2017**
 - Camp Nakanawa (near Crossville, TN)
 - 38 CAS, UVA, JMU, and NRAO people signed up



ALCON 2016

(Astronomical League Convention)

- August 10th – 13th, 2016 (*Save the Date*)
- Washington, DC
- <https://alcon2016.astroleague.org/> for more information



Member Activities

Training, Certification, and Mentoring



Member Training, Certification, and Mentoring

- **Clark 26" Refractor Operator Training & Certification – completed 2/13/16; Mentoring and OJT of Candidates is in-process**
- **LMO Dog House Clark Refractor and 14" Celestron Training & Certification - TBD**
- **Member Mentoring – in process, mentors have been assigned to each interested member**
 - *Assigned Mentor and New/Novice Member get together at a club observing activity for Astronomy 101 training and hands-on OJT sessions*



Member Activities

Club Loaner Equipment



Club Equipment

- Club Equipment Status as of May 1, 2016
- What's Available for Member Check-out?

<http://cvilleastro.com/club-telescopes-available-for-club-member-use/>

- Lost Meade Telescope has been located
- Contact Ed Preston to Checkout Club Equipment or for additional information



Member Activities

Web Site



CAS Web Site Status

- **Larry Saunders conducted Course on Website Management 101 on 2/13/16; advanced course at tbd date**
- **Calendar Updates**
 - **Member Activities**
 - **CAS Outreach Activities**



Outreach Activities



Spring 2016 Outreach Activities

- **May 7, 2016 Farm Day Solar Observing at Pleasant Grove Park, Fluvanna, VA – Rich** - *need One Member with H-Alpha, White Light Scope or willing to support event*
- **May 9, 2016, 9 AM – 2:42 PM., LMO – Transit of Mercury across the Sun** *need Members with Scopes, CAS Info Table and Traffic Coordinators, and Members with Scopes*
- **May 12, 2016, 7-10PM, Astronomy Night at JMRL, Northside Branch – Fritz** - *need Speakers, CAS Info Table Coordinator and Members with Scopes*
- **May 14, 2016, 10AM-10PM, Astronomy Day at Leander McCormick Observatory – Steve** - *need day/night-shift 26" Clark and Dog House Telescope Operators, Speakers, CAS Info Table and Traffic Coordinators, and Members with Scopes*
- **June 4, 2016 Palmyra Girl Scout Troop Night Sky Observing at Pleasant Grove Park, Fluvanna, VA – Rich** - *need Members with Scopes*



Summer - Fall 2016 Outreach Activities

- **August 4th, 25th, September 1st, 22nd, , 29th, and October 6th Celestial Observing at The Market at Grelen, Somerset, VA followed by Club Observing – Scott - *need Members with Scopes or willing to support event***
- *Note: Scott maintains an email list of interested members, if any new members are interested please signup (name, email)*
- **September 23rd – 27th, 2016 Highland County Dark-Sky Star Gazing Event, Highland County, VA – Scott - *need Members with Scopes***



Recognition and Awards



Questions and Comments?



Door Prize Drawing

*Did you enter
your name for
the door prize
drawing?*



Final Thoughts

- “When you are courting a nice girl an hour seems like a second. When you sit on a red-hot cinder a second seems like an hour. That's relativity.” ~ Albert Einstein
- “It is better to keep your mouth closed and let people think you are a fool than to open it and remove all doubt.”
~ Mark Twain
- “Thousands of candles can be lighted from a single candle, and the life of the candle will not be shortened. Happiness never decreases by being shared.” ~ Buddha

