



**NOVEMBER 2017**

# NIGHTFALL

**A PUBLICATION OF THE HUACHUCA ASTRONOMY CLUB**

## **PRESIDENT'S NOTES**

### **YEP, IT'S NOVEMBER**

Before we look at what's up, let me remind you one more time that any member in good standing can run for any board position (except Past President). Board member elections will take place during the November general meeting that will be held in the Cochise College Library (same room as where we met in October). Speaking of being in good standing, it is time to renew your membership for 2018.

It is also time to set aside time for the HAC's Christmas/ Winter Holiday/ Saturnalia/ Yule Time/ Winter Solstice/ Potluck-Plus Party. It's a time we can finally relax eat stuff and talk about things astronomical or not. This year the party will be at the Patterson Observatory, December 8, 6p till? It will be a potluck and the club will pick some stuff up to eat as well. If it's clear and why wouldn't it be? We'll put some telescopes out. The Moon is nearly 3<sup>rd</sup> quarter so it will be out of the way for the early evening. We'll have plenty to look at and talk about.

So what is up in November? Saturn is lost to the glare of evenings in November. Venus, Jupiter, and Mars are up in the early mornings, Uranus and Neptune are dim but well placed in the south throughout the night. That's the planet viewing possibility roundup in November.

However for something completely different, on November 11, in broad daylight, the third quarter crescent Moon occults the brightest star in the constellation of Leo, +1.4 magnitude star Regulus. This is on Saturday morning about 10:02 AM local time. The star reappears about 11:01 AM. This is a daylight occultation, so a steady telescope on a tracking mount and high power to darken the background sky and raise contrast will be useful.

Oh, before I forget, the Leonid meteors are expected to peak on November 17. The shower is active from November 6 to November 30, and can vary greatly with an hourly rate of 10 to 10,000+ meteors per hour. This year, the shower is expected to produce a maximum of 10 meteors per hour but you never know there could be a few surprise knots of dust. The Leonid meteors come in fast (71 km/s), and produce many fireballs so even at 10 an hour this could be a good year. The Moon is just a 1%

illuminated waning crescent at the peak of the Leonids, making this year very favorable for this shower. They are called Leonids because their radiant begins in the constellation of Leo. Their source is Comet 55P/Tempel-Tuttle.

As always, clear skies everybody

### **WELCOME OUR NEW MEMBERS**

Janet and David Pressler of Virginia Beach joined HAC at our October meeting. Welcome, we are glad you joined!

### **AT THE NOVEMBER MEETING**

The November meeting will be held at 7 pm in the Library Commons at Cochise College on Friday, November 10. This is not our usual location. The Student Union is not available this month.

Nogales amateur astronomer, Michael Schwartz who will update us on his Tenagra Observatory which has been searching for NEO's under a NASA contract.

### **RASC HANDBOOKS AND ASTRO CALENDARS**

The 2018 RASC Handbooks and the Astronomy Magazine 2018 Deep Space Mystery Calendars are in and will be distributed at the November meeting to those members who purchased them. You may also pick them up at the November Patterson Public Night on November 16 or at the HAC holiday pot luck in December. Contact Ted Forte if you need to make special arrangements to get yours.

### **HAC DUES**

Most HAC memberships are set to expire each December. It's not too early to pay your 2018 dues. Regular memberships are \$25, family memberships are \$35, Students with valid ID pay \$10. Military members get a \$5 discount (\$20 regular, \$25 family).

**If you have any question about when your dues are due, please see (or contact) the treasurer, Ted Forte.**

### **HAC HOLIDAY PARTY**

This year's HAC holiday party will be a pot luck dinner in the Patterson Observatory classroom. As usual, the party will take the place of our December meeting.

We have reserved the Patterson classroom for Friday December 8 and Saturday December 9. Please let HAC President David Roemer know if you have a preference for the date.

### **MONTEZUMA PASS ASTRONOMY EVENT**

HAC will team with the National Park Service to conduct a public star gazing session at the Montezuma Pass overlook in the Coronado National Monument on Saturday, November 18 beginning about 5:30 pm. This dark sky site is at an elevation of 6,575 feet and provides magnificent skies. The first time we used this site the event attracted at least 100 visitors. The event starts at sunset (around 5:30 pm). All HAC members are encouraged to participate and set up a telescope to share with the public.

### **PATTERSON OBSERVATORY PUBLIC NIGHT**

We've been seeing fairly large crowds at the Patterson Observatory for our monthly Public Night sessions. We typically get between 40 and 60 guests. We would love to see the core group of HAC volunteers expanded. Even if you don't bring a telescope to the event you can have fun engaging the public, all you need to bring is a smile and your enthusiasm. In fact, what is most needed is a member or two to greet guests as they arrive, explain the event, answer questions, and point out the donation box. You don't need to be an expert. We would also like to qualify a few more members on the operation of the 20-inch. The scope is easy to run but you do need to get familiar with Sky X and learn the start-up and shut down procedures for the facility. We have Public Nights scheduled for November 16 and December 28. We hope to see you there!

### **ASTRONOMY UNPLUGGED**

#### **TED FORTE**

Astro-photography is the largest and fastest growing segment of amateur astronomy. I've even heard it said that visual astronomy is dead. Hardly. One only has to look at the number of eyepieces and undriven Dobsonian telescopes on the market to assure yourself that visual observing is still a vibrant part of the hobby.

Let me first make clear that I'm OK with the dominance of astro-photography. Amateur astronomy is a hobby and there isn't a wrong way to do it.

There is, however, a significant divide between the visual observer and the astro-photographer and that gap gets wider all the time. Back in the days of hypersensitized film and manual guiding, astrophotography was a niche practice. Only a few had the skill and determination required to get good images.

Now, the prevalence of go-to, autoguiding telescopes, digital cameras with computer-managed exposures, and sophisticated processing software has made astrophotography so accessible as to become almost ubiquitous. The typical, motivated astro-photographer can achieve a level of competence that might have taken years just a decade or so ago, in a matter of months, even weeks, today. While the modern imager still needs an artful eye, and the willingness to dedicate many hours to a single image, much of the real drudgery of astrophotography has been supplanted by technology. It is no wonder that its

popularity has soared. Hubble-quality images produced by amateurs have become commonplace.

You can't swing a dead cat at an astronomy club meeting these days without hitting an imager capable of world class photography. In the past, astro-photographers always graduated from the ranks of the visual observers but I've met more than my share of 'newbies' recently that are happy to skip visual observing altogether and go right into photography. Visual astronomy has seemingly become quaint.

So, to those few stalwart adherents to the ancient art of visual astronomy, I say bravo. You should be proud to continue the tradition of Galileo, Cassini, and Huygens, of the Herschels, and of their modern counterparts, O'Meara, Gottlieb, Banich, Levy, and their ilk.

There is no experience quite like the visceral satisfaction of viewing the heavens with one's own eyes. Standing under a canopy of stars, I am always struck by the universality of the act. These are the same stars, little changed, that the first humans gazed upon. Their patterns would be familiar to Aristotle, Ptolemy, Caesar, Shakespeare. We share them with all humankind and yet we each own a bit of them exclusively. Those particular ancient photons that tickle our retinas are ours alone; a once-in-forever connection between the distant stars and an individual sentient being. It makes you feel privileged. And indeed, you are if you've ever marveled at them through the telescope. There are about seven billion people in the world and only about 10,000 amateur astronomers.

Viewing celestial objects through the telescope yields more than a connection to the universe; it also connects you to the observers of the past. View a little-known object, say NGC 5710, (a nondescript 14th magnitude galaxy in Boötes), and you see the same object that Sir William Herschel saw. You can imagine the scene; an April night in 1792, William glued to the eyepiece of the 18.7-inch at the Observatory House on Windsor Road in Slough, UK, his sister Caroline in a nearby window recording his shouted descriptions by candlelight. You know that at that moment you are the last in a line of observers to have laid eyes on the object, a line that started with Herschel and ended, at least at that moment, with you. For most objects there are but a very few visual observers in that line. A select few that share that singular experience.

Sure, you can point your instrument laden telescope to the object and pull a digitized facsimile up on your computer screen. You can direct its faint light onto a sensor converting its photons to electrical impulses that your image software will convert into pixelated bits of light and dark. You can build an image of the object. It will be interesting, it may be revealing, and its likely to be beautiful. But you can't collect your personal portion of its photons and you can't share in Herschel's experience without putting your eye to the eyepiece.

### **PICTURES FROM HAC MEMBERS**

M33 65 x 10MIN. EXPOSURES (10 3/4HRS), ~25 DARKS, ~75 FLATS, ~150 BIAS, AT ISO 1000 WITH THE CANON EOS

7D MK2, WITH THE WILLIAM'S OPTICS 81MM GTF APO AND THE VIXEN SXP GERMAN EQUATORIAL MOUNT OVER 4 NIGHTS, PROCESSED WITH PIXINSIGHT. GLEN SANNER



A NICE CONJUNCTION OF THE WANING CRESCENT MOON, VENUS (BELOW THE MOON), AND MARS (ABOVE AND TO THE RIGHT OF THE MOON). RICK BURKE



NGC 1333 MY FIRST REFLECTION NEBULA. WHEN I FIRST SAW THIS I WAS SO TAKEN WITH ITS BEAUTY I KNEW I HAD TO TRY IT. SINCE THIS IS A VISIBLE LIGHT NEBULA, I'M CURIOUS TO KNOW, IS IT AN OBJECT THAT IS OF INTEREST TO VISUAL

ASTRONOMERS? CAPTURED WITH MY 100MM REFRACTOR AND ATIK ONE 6.0 CAMERA. PROCESSED WITH PIXINSIGHT. RICHARD PATTIE



SH2 308 RBG PLUS OIII IMAGES ABOUT 20 HOURS TOTAL TIME MOSTLY IN OIII MAX MIROT.



## WANT ADS

### FOR SALE: CELESTRON 6SE

Pat Mulhern [pkmul1@cox.net](mailto:pkmul1@cox.net) contacted us to offer a telescope for sale. A "little used" NexStar 6SE purchased 10 years ago. It includes a Celestron 2" SCT diagonal. Pat lives in Sierra Vista (Winterhaven) and is asking \$400 for the scope. Contact Pat if interested.

**FOR SALE: MEADE EXT60AT NEVER USED BEFORE, INCLUDES TRI-POD.**

Asking \$200.00 B/O

Contact Keith Mullen at 266-4230

**FOR SALE: MEADE 10" LX200 CLASSIC TELESCOPE**

In very good condition, with tripod, 120v AC and 12v DC power converters with 25' power cords, dew shield, 8x50 finder scope, electric focuser, piggy back bracket, and soft sided carrying case. Also includes a set of Meade

CCD color filters, Meade CCD 3.3 focal reducer and CCD variable T-adapter. Plus some other equipment.

Asking \$ 1,800.

Contact Bob Stroxtile at [strox@ssvecnet.com](mailto:strox@ssvecnet.com) or call 520-249-0875.

**FOR SALE: 8" CELESTRON NEX STAR**

Good condition with all original accessories.

Contact Mae Childs at [maechilds2014@aol.com](mailto:maechilds2014@aol.com)

**FOR SALE: PIER TECH ELECTRIC TELESCOPING PIER WITH LATI-WEDGE MADE FOR THE LATITUDE OF SIERRA VISTA**

All the hardware, bolts, nuts, washers and plates are with the pier. Pier Tech can make new legs for it to make it correct for anywhere in the world. The pier and wedge have never been used and the only time the pier was out of the box was to take the photos. New today, the pier and wedge are \$3,400. Asking \$2,800.

Contact Bob Stroxtile at [strox@ssvecnet.com](mailto:strox@ssvecnet.com) or call 520-249-0875.

**FOR SALE: MEADE STARFINDER 8" REFLECTOR TELESCOPE**

Will Sell at a very reasonable price. Included are a Telrad Finder, Filters, and additional Lenses.

Contact Mr. Jim Moses at (520) 803-0913 or by email [jjmoses2@gmail.com](mailto:jjmoses2@gmail.com)

**FOR SALE: CELESTRON CELESTAR 8 INCH S/C DELUXE - \$1200.**

Will also sell pieces individually

Contact Rhonda and Terry Taylor at (520) 366-2378 or by email at [twrl2@yahoo.com](mailto:twrl2@yahoo.com). Or See Craigslist at <http://sierravista.craigslist.org/bar/4523742100.html>

**FOR SALE: OLDER OPTICAL GUIDANCE SYSTEMS 12.5" F/9 RITCHEY-CHRETIAN TELESCOPE.**

Very good Paul Jones ceramic optics, Robofocus secondary focuser, will include Takahashi collimating telescope. Some of the images through the scope are at [Mshadephotography.com](http://Mshadephotography.com).

Contact Mike J. Shade at [mshade@q.com](mailto:mshade@q.com)

**FOR SALE: PLANEWAVE CDK 14 CORRECTED DALL-KIRKHAM TELESCOPE.**

OTA, new November 2014, optional truss rod, shroud and, optional upper dovetail and the accessories that were included with the telescope (primary to secondary spacing tool). There is NO FOCUSER (they do not come with one, you need to add one) but the adapter for an Optec TCFS3i (which is the focuser I used) is included. I also have the factory wooden shipping crate. The telescope has been in use every clear night in the observatory in Sonoita. This is an outstanding instrument and a great imaging scope.

Contact Mike J. Shade at [mshade@q.com](mailto:mshade@q.com)

**CLUB OFFICERS AND CONTACTS**

**President:** David Roemer      **Vice President:** Bill Howard  
**Secretary:** Bert Kelher      **Treasurer:** Ted Forte  
**Past President:** Bob Gent

**Board Members-at-Large**

Gary Grue      Ken Kirchner      Howard Day      Ken Duncan

**Nightfall Editor:** Cindy Lund      [alund@juno.com](mailto:alund@juno.com)  
**Webmaster:** Ken Kirchner  
**Facebook Editors:** Bert Kelher and Craig Gundy  
**MSP Coordinator** Keith Mullen

**Website:** <http://www.hacastronomy.org>  
**Facebook:** <http://www.facebook.com/HuachucaAstronomyClub>  
**Email:** [info@hacastronomy.org](mailto:info@hacastronomy.org)

**PLEASE SUPPORT OUR SPONSORS**

Our sponsors have been keeping us supplied in door prizes for some years. If you have not contacted them lately, please consider this. They have a lot of great astronomical products that we all need.

For more information on products and contact information, their websites are:

**Farpoint Astronomy**      <http://www.farpointastro.com/>  
**Starizona**      <http://starizona.com/>

## HAC Nov/Dec Calendar of Events

| SU  | MO  | TU   | WE                 | TH  | FR  | SA  |
|---|---|--|--------------------|---|---|---|
| <b>5 Nov</b><br>Daylight Savings Time Ends  | 6   | 7  | 8                  | 9   | <b>10</b><br> 3:36 pm<br><br>Hac Meeting<br>Library<br>Commons | <b>11</b><br>Girl Scouts at Patterson 6 pm  |
| <b>12</b>   | <b>13</b>   | <b>14</b>  | <b>15</b>          | <b>16</b><br>Patterson Public Night 6 pm<br><br>Leonid meteors                                  | <b>17</b><br>The Nov Member Star Party will be 17 or 18 watch HACLIST for details<br>Leonid meteors   | <b>18</b><br> 6:42 am<br>Montezuma Pass Star Party<br>Leonid meteors |
| <b>19</b>   | Saturn 3° S of moon   | <b>21</b>  | Neptune Stationary | <b>23</b><br> | <b>24</b><br>Mercury greatest east elongation   | <b>25</b>   |
| <b>26</b><br> 12:03 pm                                 | Mercury/Saturn conjunction  | <b>28</b>  | <b>29</b>          | <b>30</b>   | <b>1 Dec</b>  | <b>2</b>  |
| <b>3</b><br> 10:47 am<br><br>Aldebaran 0.8° from moon | <b>4</b>  | <b>5</b>   | <b>6</b>           | <b>7</b>  | <b>8</b><br>HAC Holiday Pot Luck @ Pat<br>Regulus 0.7° from moon  | <b>9</b>  |
| <b>10</b><br> 2:51 am                                | <b>11</b>   | <b>12</b>  | Geminid Meteors    | Geminid Meteors   | Geminid Meteors   | <b>16</b><br>Member Star Party  |
| <b>17</b>   | <b>18</b><br> 1:30 am  | <b>19</b>  | <b>20</b>          | Winter Solstice 11:28 am  | <b>22</b>   | <b>23</b>   |
| <b>24</b>   |    | <b>26</b><br> 4:20 am | <b>27</b>          | <b>28</b><br>Patterson Public Night 6 pm  | <b>29</b>   | <b>30</b>   |
| <b>31</b>   | <b>1 Jan 2018</b><br> 9:24 pm<br> | <b>2</b><br>HAPPY  | <b>3</b><br>NEW    | <b>4</b><br>YEAR!   | <b>5</b>  |    |

All event times MST. Join Haclist to keep up to date with all of the Huachuca Astronomy Club events  
 Send an email to: [haclist-subscribe@yahoo.com](mailto:haclist-subscribe@yahoo.com)