



February 2017

# Nightfall

A Publication of the Huachuca Astronomy Club

## President's Notes

### Another Comet and Airing Some Gripes

February 2017: are cool crisp comets and spectacular seeing conditions in the offing? I know I've written plenty about the other two comets coming around, but there's yet another one in the sky and well placed for your observational pleasure. Comet C/2015 V2 (Johnson) is now about 10<sup>th</sup> magnitude and will be in the constellation of Boötes for the next few weeks. So, good binoculars, small telescopes, and of course big telescopes, should take a look. The comet will get better, maybe on the threshold of naked-eye, before it starts to fade.

Comet C/2015 V2 (Johnson)



Image: Jay LaBlanc, January 2017

Okay, and now on to our ongoing conversation on the function and focus of our club. I've heard several times from a few members, once from some others, and not yet from the whole rest of the membership.

This introspection started after exchanges with a couple of long-time members concerning a request for meeting format changes.

The first suggestion is that we conduct club business first and place the guest speaker last at our monthly meetings. After much discussion among club members, the board would like to continue to schedule our guest speaker first

There are two reasons for this: first, we continue to attract our first-class speakers in part because we treat them with respect. A measure of that respect is opening the meeting with their presentation and not our club business. Most of these speakers take time from busy schedules and endure long travel times to make their way to our meetings. The club also treats them to a quick meal before the meeting to thank them and to ensure they are ready to open the meeting on time.

The secondly the general meetings are not just for our membership. They are for the education and entertainment of our members *and* the public. Again, this is why we precede first with the speaker then recent, future club events, and general information, and as a rule do not conduct club business at these meetings. The board conducts the club's business 'off-stage' to avoid having to hash out the mundane things in public

Several members have shared specific ideas for the meetings: having special interest groups meet before the general meeting, reporting on these groups after the speaker, and designating a few meetings a year to be member-only meetings. I know I don't feel I have enough time during meetings to catch up with everybody or even to get to know members that I only see at meetings. So, I would like to continue cultivating these and more ideas on the HAClist.

As I've already stated, the focus of our meetings is informational, with a little social: to enlighten, share a few ideas, and inform our members and interested public of upcoming events. Because our meetings are open to the public, as well as members, and because our hobby has many niche specialties, it is difficult to provide (ongoing) prizes apropos to all. If I hear no word to the otherwise, I would like to dispense with door prizes as a regular practice included in the meetings.

We also got a few members stating that they do not consider the Patterson Observatory "ours." Well, strictly speaking, it is not. Nevertheless, how many clubs have the close association with a university foundation like the one

we have, that allows us to use a research-grade observatory and classroom pretty much anytime we want? For free? Moreover, the foundation would like us to use it more? Clubs our size cannot afford anything like the Patterson, much less the upkeep and insurance. We are fortunate to have such a resource available to us. Please take advantage of this resource as being a perk for membership in this club.

One club-specific topic that came up (and got a little quick traction on the HAClist) was that of a member's-only dark sky site or observatory. This idea piggybacked on the idea that the Patterson isn't ours. The idea, itself, is intriguing. There are a lot of unanswered questions to be sure. Many in the club already have their own observatories, but for those who don't have their own personal observatory, it would be nice. But, so many questions:

Would members who have an observatory use another club site?

How would we support it? Insurance, security, maintenance, access?

Would people feel safe using it?

Would it be a full-blown observatory or some pads and posts? I don't know.

Would such a project bring the club together or drive it apart?

How much would we need to raise dues to support the added cost?

We are a small club, with a small budget. Supporting a site (insurance alone) would be a great expense. And, consider this: One of the Tucson clubs (TAAA) has their own site in the mountains east of here. It would be far less expensive for all of us to join their club for access to that site than to build our own site. But, again, would it feel like it was "ours"? I don't know that, either.

It turns out, the meeting format is considered great for the vast majority of members who responded. Okay, maybe I can run a tighter ship when it comes to the duration of the talks, but the speakers come so far, and the content is very interesting, I feel bad about cutting it off; but I'll try. Oh, and I can point out more upcoming astro events; got it!

The reality is that the club has its highest membership ever. The re-enrolment rate is very good. We have wonderful guest speakers and educators. We have a public-accessible web presence through both our web site and Facebook, as well as our Yahoo group and email list where we keep our membership apprised of personal, group, board, and total club happenings. We have a good newsletter (to which I would like to see more members contribute with articles and comments [hint, hint]). Lastly, we provide outreach at a wide range of public venues with a good but small crew (but would love others to join the fun, which is easy to do [hint, hint]). HAC doesn't push anyone away.

Thanks to those who have, so far, submitted comments. They include some very good suggestions and clever ideas. I want to hear from everyone, not the just a few. So, let's make this a continuing discussion. I really do want to know

what you think, and make a club for everyone with the astronomical itch. So, send me a line or two.

## Welcome Our New Members

Karen Peitsmeyer of Sierra Vista rejoined the club. Karen is a founding member and one of the early officers of the HAC. Welcome back Karen! Also joining the club is Willie Cochran of Sierra Vista. Welcome, we are glad you joined.

## At Our February Meeting

### Glenn Minuth

Glenn is a retired (34 years) Department of Defense civil servant (with green/white/blue/purple svc assignments) who worked at various duty stations where his positions included: Cartographer (programmer/analyst); Instructor, National Defense University; IT Specialist; and IT Project Manager/Team Leader/Division Chief. His bachelors and graduate degrees are in geography with specialties in cartography, geomorphology, remote sensing, and geology. Others areas of academic focus included biogeography (flora/fauna), weather/climate, and pedology (soils). His graduate research focused in the area of geomorphology and geology for examination of mound micro-relief (Mima-type mounds) on volcanic mudflows in the central Sierra Nevada foothills, California. He taught geography, weather & climate, astronomy, and geology part time in the Life and Physical Science Department of American River and Sacramento City Colleges in Sacramento, California for seven years. He's been a part time instructor in geography and geology for 25 plus years in Cochise College credit and non-credit programs at multiple campuses where he conducts field trips and lectures in the areas of--military history, astronomy, history, ecology, weather/climate, geography, and geology. He also offers similar programs to various eco-tourism groups and local clubs.

### "An Update on SOFIA: NASA's Airborne Telescope".

SOFIA is the successor to the Kuiper Airborne Observatory. SOFIA is the largest airborne observatory in the world, capable of making observations that are impossible for even the largest and highest ground-based telescopes. NASA awarded the contract for the development of the aircraft, operation of the observatory and management of the American part of the project to the Universities Space Research Association in 1996. The SOFIA telescope saw first light on May 26, 2010. During its planned 20-year lifetime, SOFIA also will inspire the development of new scientific instrumentation and foster the education of young scientists and engineers. The observatory is based at NASA's Armstrong Flight Research Center in Palmdale, California. This presentation will cover the project's programmatics and provide a technical update on the astronomic accomplishments of this telescope to date.

The February meeting will be held on February 10, at 7 p.m. in the Library Commons at Cochise College Sierra vista Campus 1140 N. Colombo Avenue. We will be treating Glen to dinner at the Outback Steak House before the meeting. Please RSVP to Ted Forte (tedforte511@gmail.com) if you would like to join us for dinner. Please plan to be seated by 5 p.m.

## Are your HAC Dues due?

If you owe dues for 2017, you can pay them at the February meeting – please see our treasurer, Ted Forte. Cash or check please. Make checks payable to the Huachuca Astronomy Club. You may also mail your check to PO Box 922 Sierra Vista, AZ 85636 or pay online with your credit card or Pay Pal account. Go to [www.hacastronomy.org](http://www.hacastronomy.org), pull down the Membership tab and click renew. If you are not sure about whether or not you owe, or how much you owe just contact Ted. Your membership is important to us, please renew.

## Night Sky Network

HAC is a member of the NASA Night Sky Network. NSN is an outreach and education initiative managed by The Astronomical Society of the Pacific and supported by NASA. We have a number of outreach resource kits that make explaining astronomical concepts fun and easy. Each kit contains training videos (to prepare you as a presenter), Power Point Slide presentations that you can use as is or modify to suit and a variety of often clever training aids and models. The kits are stored at Patterson and are available to HAC members that sign up to be presenters. See Ted, Nancy Hannaford, Sylvia or Scott Conklin or Connie Kelher to learn how you can participate.

## January Star Party Corner

By Keith Mullen, HAC Member Star Party Coordinator

Saturday night, Jan. 28 saw 39 people show up for the Monthly Members Star Party at RGO in Palominas. What was initially planned as a Welcome Lumicon party turned out to be artistic Pizza festival, Bob Latterman made pizzas to resemble Jupiter with bacon strips as the equatorial bands and a big pepperoni circle as the "Great Red Spot".

I think everyone had a great time though. We saw many members who haven't been to an event in years. Tony and Debbie Selover, Eric Sundius, George Adamas, Hans and Joanne, Tim Doyle, Rich Swanson, David Butler and my God, even Jay Leblanc showed up and I haven't seen him since 2006. Most of the usual's were here, David and Nancy, Ted, Gary, Bob and Barb, Doug and Jean, Teri Gent graced us and brought Bob, Craig and LeAnne were here early and helped set up. Steve and Jeannie moseyed over from next door too, Howard Day and Barbara stayed awhile, and Cheryl Healy came by (with a 3 foot frying plate) Yummy stuff. Dennis and Jean came down from the hill, and Cindy was here to get some notes for the newsletter. We had a few guests who might turn into members sometime soon. So if I missed anyone it's because I was 5th or 6th in line to look through my own scope most of the evening, RGO felt like a tuna can but we managed to check out some Lumicon filters and I even sold a few., I know some of you wanted one but didn't bring any cash so I'll honor the 50% off retail sale for a while, but don't push your luck.

Next Monthly Star Party will be Feb. 25, and it's a solar party at Bob Gents, read more about it in the newsletter.

Teresa and I want to thank you all for the great dishes and desserts and especially for giving us the chance to throw an

old fashion HAC Member Star Party where everyone has a good time and we see old friends and make new ones

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Space Place Article      January 2016

## Comet Campaign: Amateurs Wanted

By Marcus Woo

In a cosmic coincidence, three comets will soon be approaching Earth—and astronomers want you to help study them. This global campaign, which will begin at the end of January when the first comet is bright enough, will enlist amateur astronomers to help researchers continuously monitor how the comets change over time and, ultimately, learn what these ancient ice chunks reveal about the origins of the solar system.

Over the last few years, spacecraft like NASA's Deep Impact/EPOXI or ESA's Rosetta (of which NASA played a part) discovered that comets are more dynamic than anyone realized. The missions found that dust and gas burst from a comet's nucleus every few days or weeks—fleeting phenomena that would have gone unnoticed if it weren't for the constant and nearby observations. But space missions are expensive, so for three upcoming cometary visits, researchers are instead recruiting the combined efforts of telescopes from around the world.

"This is a way that we hope can get the same sorts of observations: by harnessing the power of the masses from various amateurs," says Matthew Knight, an astronomer at the University of Maryland.

By observing the gas and dust in the coma (the comet's atmosphere of gas and dust), and tracking outbursts, amateurs will help professional researchers measure the properties of the comet's nucleus, such as its composition, rotation speed, and how well it holds together.

The observations may also help NASA scout out future destinations. The three targets are so-called Jupiter family comets, with relatively short periods just over five years—and orbits that are accessible to spacecraft. "The better understood a comet is," Knight says, "the better NASA can

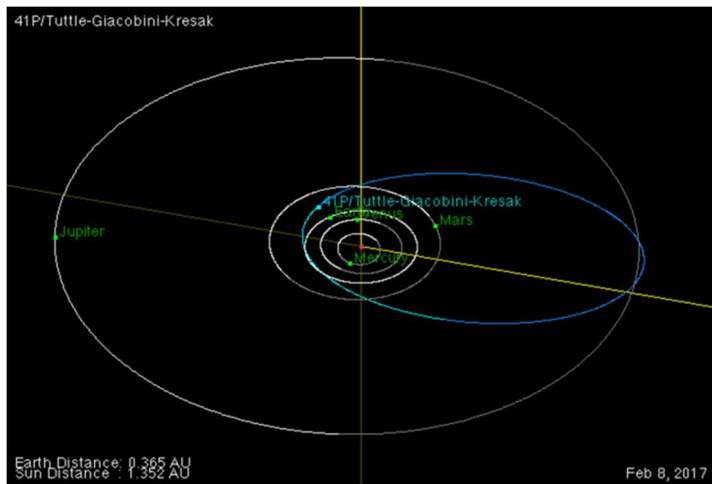
plan for a mission and figure out what the environment is going to be like, and what specifications the spacecraft will need to ensure that it will be successful."

The first comet to arrive is 41P/Tuttle-Giacobini-Kresak, whose prime window runs from the end of January to the end of July. Comet 45P/Honda-Mrkos-Pajdusakova will be most visible between mid-February and mid-March. The third target, comet 46P/Wirtanen won't arrive until 2018.

Still, the opportunity to observe three relatively bright comets within roughly 18 months is rare. "We're talking 20 or more years since we've had anything remotely resembling this," Knight says. "Telescope technology and our knowledge of comets are just totally different now than the last time any of these were good for observing."

For more information about how to participate in the campaign, visit <http://www.psi.edu/41P45P46P>.

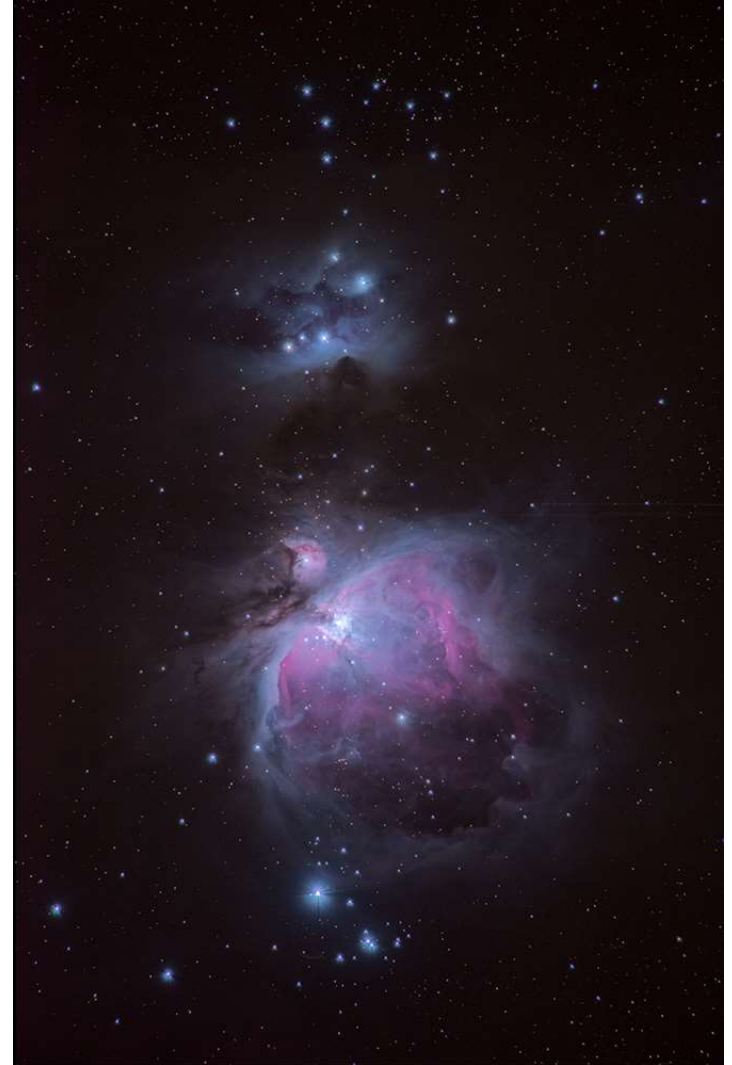
Want to teach kids about the anatomy of a comet? Go to the NASA Space Place and use Comet on a Stick activity! <http://spaceplace.nasa.gov/comet-stick/>



An orbit diagram of comet 41P/Tuttle-Giacobini-Kresak on February 8, 2017—a day that falls during the comet's prime visibility window. The planets orbits are white curves and the comet's orbit is a blue curve. The brighter lines indicate the portion of the orbit that is above the ecliptic plane defined by Earth's orbital plane and the darker portions are below the ecliptic plane. This image was created with the Orbit Viewer applet, provided by the Osamu Ajiki (AstroArts) and modified by Ron Baalke (Solar System Dynamics group, JPL). <http://ssd.jpl.nasa.gov/sbdb.cgi?orb=1;sstr=41P>

## Picture from HAC Members

M42 Orion Nebula by Jay Leblanc



M51 Whirlpool Galaxy by Gary Sedun



## want Ads

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: 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: Planewave CDK14 corrected Dall-Kirkham telescope.

OTA, new November 2014. Optional truss rod shroud and optional upper dovetail and the accessories 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.

[nuvolari\\_p3@q.com](mailto:nuvolari_p3@q.com)

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 [twr12@yahoo.com](mailto:twr12@yahoo.com). Or See Craigslist at <http://sierravista.craigslist.org/bar/4523742100.html>

FOR SALE: Older Optical Guidance Systems 12.5" f/9 Ritchey-Chretien 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)

## 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/>

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**Past President:** Bob Gent

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Gary Grue      Ken Kirchner      Bert Kelher      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.com>

**Facebook:** <http://www.facebook.com/HuachucaAstronomyClub>

## HAC Feb/Mar Calendar of Events

SU	MO	TU	WE	TH	FR	SA
29	30	31 Venus/Moon 4° Mars/Moon 2°	Feb 1	2 Patterson Public Night 6:30PM	3  11:19PM	4
5	6 Jupiter Stationary	7	8	9	10  7:33 PM Hac Meeting Library Commons	11
12	13	14	15 Jupiter/Moon 3° apart	16 Lowell School at Warren Ballfield 6:30PM	17 Venus at greatest brillancy	18  2:33PM
19	20 	21	22	23	24	25 Hac Member Star Party at the Gent's
26  9:58AM	27	28	Mar 1	2 Patterson Public Night 7PM	3	4
5  6:32 AM	6	7	8	9	10 HAC Meeting Student Union	11
12  10:54 AM Daylight Savings Time Begins	13	14 Jupiter/Moon 2° apart	15	16	17 	18
19	20  6:29 AM Saturn/Moon 3° apart	21	22	23	24 Girl Scouts at Patterson	25 Member Star Party/ Coronado Star Party
26	27  10:57 PM	28	29	30 Patterson Public Night 7PM	31	

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@yahoogroups.com](mailto:haclist-subscribe@yahoogroups.com)