March - May 2016 Events

Board & General Meetings
Saturday 3/19, 4/23, 5/21
Board Meetings: 6-7:30pm
General Meetings: 7:30-9:30pm

Fix-it Day (2-4pm)
Sunday 3/6, 4/3, 5/1

Solar Observing (locations differ)
Friday 3/11, 4/15, 5/13

Intro to the Night Sky Class
Houge Park 1st Qtr In-Town Star Party
Friday 3/11, 4/15, 5/13

Astronomy 101 Class
Houge Park 3rd Qtr In-Town Star Party
Friday 4/1, 4/29, 5/27

RCDO Starry Nights Star Party
Saturday 3/26, 4/30, 5/28

Binocular Star Gazing
Saturday, May 28th

Imaging SIG Mtg
Tuesday 3/15, 4/19, 5/17

Quick STARt (by appointment)
Friday 4/8, 6/11

Unless noted above, please refer to the SJAA Web page for specific event times & locations.

Elections, Annual Awards & Pot Luck Dinner
From Tom Piller & Rob Jaworski

This year at the February 20th annual meeting, elections were held, food served, and a few members were recognized for making SJAA shine. It was a great meeting. Dave Ittner and Teruo Utsumi did an outstanding job of noting all that our clubs do and presenting the awards. Featured above is the new SJAA banner, championed by Rob Jaworski, which is to be mounted permanently on the fence at Houge Park.

Service Award recipients were:

**Greg Claytor** for significant contributions, participation, and service while serving on the board of directors

**Michael Packer** for significant contributions, participation, and service while serving on the board of directors

**Marilyn Perry** for being the “Bright Star” of the club

**Wolf Witt** for significant participation and service in the solar program

**David Grover** for Creation of and running of the “Intro to Night sky talks”

**Glenn Newell** for significant participation of numerous public outreach events

**Paul Colby and Marion Barker** for significant participation of numerous public outreach events

Bill O’Neil, Glenn Newell, Rob Jaworski and Dave Ittner were all up for reelection, and we are happy to report all nominees, all of which are incumbents, were reelected to another two year term by the membership. Each candidate received 24 votes in favor and zero against.

Congratulations to all the candidates! The SJAA membership and the broader amateur astronomy community appreciate your service to this important educational institution serving the south bay and beyond!
Annual SJAA Awards
February 20, 2016

Above
Bill O’Neil accepting awards from Dave Ittner on behalf of Greg Claytor and Michael Packer for their significant contributions, participation, and service while serving on the board of directors.

Above
Wolf Witt accepting his award for significant participation and service in the solar program

Above
David Grover accepting his award for Creation of and running of the “Intro to the Night Sky” talks

Above
Glenn Newell accepting his award for significant participation of numerous public outreach events

Above
Marilyn Perry accepting her “Bright Star” award for being the bright star of the club!

Above
Paul Colby and Marion Barker, the club’s Dynamic Duo, accepting their awards for significant participation of numerous public outreach events

Above
Wolf Witt accepting his award for significant participation and service in the solar program

Photo Credits: Tom Piller and Ed Wong
Lots of fun and wonderful conversation at the Annual Meeting, Elections and Pot Luck dinner. If you didn't attend you missed out! No body went home hungry. Twenty-Four votes were cast for each of the four directors up for re-election. It was unanimous!

Photo Credits: Tom Piller and Ed Wong
The SJAA Swap Meet for 2015 was a resounding success! There were lots of people who came out to browse, buy and sell, with old friends meeting up for the first time in a long while.

Though the event was scheduled to start at 11AM, there were people showing up even before then, setting up their wares, and others who came early to snag the good deals on pieces and parts of astronomy gear they needed. It was quite evident that this event was long anticipated. And just as it started early, it also ended early. Advertised to shut down at 4pm, the swap meet really began winding down at about 2pm, with people having socialized enough, sorting through the gear plenty enough times, and feeling satisfied that everything, and everyone, who was going to show up had already done so.

The hall was cleaned out and cleaned up by 2:30.

Throughout the year, the SJAA receives donations of astronomy gear, usually sets of full telescope rigs with all the accessories. These donations are evaluated to determine if there is a place for it in a club program, such as the loaner telescope program. If there is no suitable place for it, then its value on the secondary market is determined, and finally gets listed for sale at either the annual swap meeting or auction. At this year’s swap meet, the club was able to find new homes for quite a number of gently and otherwise used scopes and accessories. Including direct sales and donations of sales proceeds from participants, the SJAA netted about $2300 at the end of the day.

The club very much appreciates all donations, and the board of directors also very much appreciates the time and effort of the volunteers that make these events happen, including the prep work of receiving donations, evaluating them, and finally finding them new homes.

The community of amateur astronomy enthusiasts makes it all work.

We look forward to the next swap meet and seeing faces that sometimes become less and less frequent in the hall at Houge or on the hills in the dark of a new moon.

We hope we can continue to encourage people to get out, to observe, and to keep this wonderful community and hobby going.

If you attended the swap meet and have any feedback for the organizers, please use the Feedback link on the SJAA website.

Photo Credits: Glenn Newell
A Planetary Quintet is Dancing Across the Skies

Early risers have an opportunity to see five naked-eye planets in pre-dawn skies during late January and continuing through late February. **Credits: NASA/JPL-Caltech**

Well, it’s not quite like the song about the dawning of the Age of Aquarius, but our solar system is experiencing an uncommon lineup that should be quite a treat for sky-watchers. The solar system itself hasn’t changed -- it’s just that the timing of the planets orbiting the sun puts them into a lineup that makes for good viewing by Earthlings.

From now until about Feb. 20, early risers will stand a good chance of seeing five planets simultaneously in the pre-dawn sky: Mercury, Venus, Saturn, Mars and Jupiter (technically six, if you count the Earth you’re standing on). Those planets should be visible to the naked eye. Of course, if you happen to have binoculars or a telescope, you’ll get an even better view.

The last appearance by the quintet on one nighttime stage was in December 2004 and January 2005. If you miss this month’s viewing opportunity, the five will be back in the evening sky in late July through mid-August, but Mercury and Venus won’t be easily visible from northern latitudes.

If you go outside during the five-planet display, and if weather conditions are favorable, here’s what you should be able to see: Jupiter will rise in the evening, then Mars will pop up after midnight, followed by Saturn, brilliant Venus, and finally, Mercury. All five will be visible from southeast to southwest between 6 and 6:30 a.m. local time, over the span. Earth’s moon will also join the cosmic display from Jan. 23 to Feb. 7. During that time, the moon will shift from the west-northwest to east-southeast and will be visible near the five planets and some stars.

During the day and night between Jan. 27 and 28, the morning view of the moon will switch from right of Jupiter to left of Jupiter. Then, on Feb. 1, the moon will be visible near Mars, followed by an appearance near Saturn on Feb. 3. On Feb. 6, the moon, Mercury and dazzling Venus will appear in a triangular formation before sunrise.

For Jim Green, director of NASA’s Planetary Science Division, the rare planetary lineup reminds him how far we have come in exploring our solar system.

"NASA spacecraft have visited each one of the five planets that we will be able to see over the next few weeks, as well as Uranus, Neptune and Pluto," Green said. "We can be proud that American curiosity, technology and determination are helping us unlock many mysteries about our solar system."

Credit: JPL/NASA
First Flower Grown in Space Station's Veggie Facility

On Jan. 16, 2016, Expedition 46 Commander Scott Kelly shared photographs of a blooming zinnia flower in the Veggie plant growth system aboard the International Space Station. Kelly wrote, “Yes, there are other life forms in space! #SpaceFlower #YearInSpace”

This flowering crop experiment began on Nov. 16, 2015, when NASA astronaut Kjell Lindgren activated the Veggie system and its rooting “pillows” containing zinnia seeds. The challenging process of growing the zinnias provided an exceptional opportunity for scientists back on Earth to better understand how plants grow in microgravity, and for astronauts to practice doing what they’ll be tasked with on a deep space mission: autonomous gardening. In late December, Kelly found that the plants “weren’t looking too good,” and told the ground team, “You know, I think if we’re going to Mars, and we were growing stuff, we would be responsible for deciding when the stuff needed water. Kind of like in my backyard, I look at it and say ‘Oh, maybe I should water the grass today.’ I think this is how this should be handled.”

The Veggie team on Earth created what was dubbed “The Zinnia Care Guide for the On-Orbit Gardener,” and gave basic guidelines for care while putting judgment capabilities into the hands of the astronaut who had the plants right in front of him. Rather than pages and pages of detailed procedures that most science operations follow, the care guide was a one-page, streamlined resource to support Kelly as an autonomous gardener. Soon, the flowers were on the rebound, and on Jan. 12, pictures showed the first peeks of petals beginning to sprout on a few buds.

Image Credit: NASA

New 10th Planet Discovered 07.29.05

Image above: These time-lapse images of a newfound planet in our solar system, called 2003UB313, were taken on Oct. 21, 2003, using the Samuel Oschin Telescope at the Palomar Observatory near San Diego, Calif. The planet, circled in white, is seen moving across a field of stars. The three images were taken about 90 minutes apart.

Scientists did not discover that the object in these pictures was a planet until Jan. 8, 2005. The new planet, which is yet to be formally named, is at least as big as Pluto and about three times farther away from the Sun than Pluto. It is very cold and dark. The planet was discovered by the Samuel Oschin Telescope at the Palomar Observatory near San Diego, Calif., on Jan. 8, 2005.

Image credit: Samuel Oschin Telescope, Palomar Observatory
NASA/JPL-Caltech
A giant cosmic necklace glows brightly in this NASA Hubble Space Telescope image.

The object, aptly named the Necklace Nebula, is a recently discovered planetary nebula, the glowing remains of an ordinary, Sun-like star. The nebula consists of a bright ring, measuring 12 trillion miles wide, dotted with dense, bright knots of gas that resemble diamonds in a necklace.

A pair of stars orbiting close together produced the nebula, also called PN G054.2-03.4. About 10,000 years ago one of the aging stars ballooned to the point where it engulfed its companion star. The smaller star continued orbiting inside its larger companion, increasing the giant’s rotation rate.

The bloated companion star spun so fast that a large part of its gaseous envelope expanded into space. Due to centrifugal force, most of the gas escaped along the star’s equator, producing a ring. The embedded bright knots are dense gas clumps in the ring.

The pair is so close, only a few million miles apart, they appear as one bright dot in the center. The stars are furiously whirling around each other, completing an orbit in a little more than a day.

The Necklace Nebula is located 15,000 light-years away in the constellation Sagitta. In this composite image, taken on July 2, Hubble’s Wide Field Camera 3 captured the glow of hydrogen (blue), oxygen (green), and nitrogen (red).

Credit: NASA, ESA, and the Hubble Heritage Team (STScI/AURA)
Recent backyard observing near Houge Park

From Vini Carter

We've been getting some wonderful "catch as catch can" viewing in town [NW San Jose] lately. Sometimes the opportunity lasts for only an hour between clouds leaving and clouds returning but the quality of the viewing has been fairly high. Tonight [December 17, 2015] was especially clear. We observed from about 10pm to midnight, starting out with binoculars, and then graduating to the 90mm refractor.

The great Orion Nebula was naked-eye visible, and Andromeda was easily viewed through a pair of 10x50 binoculars. Using my refractor at 135x, I could just make out Mintaka's 6.8 magnitude double, using averted vision. After a long day, it was the cold that finally did us in, and we reluctantly brought the gear back inside. Beautiful; so beautiful.

Three Clusters for the View of One!

From Mark McCarthy

Dec 4, 2015

I was out this evening noodling around the double stars and open clusters in Cassiopeia, wandering object by object in my atlas. I happened upon an open cluster designated "K14" near Kappa Cas and was intrigued. Having a look at 170x (12.5" reflector), I saw a lovely spray of stars with about 10 brighter stars, six of which were in parallel lines. Even more interesting was the two more groups of stars to the northern edge of the 0.6 degree FOV. These were not identified on my atlas (Cambridge Double Star Atlas, to mag 9, similar to the Pocket Sky Atlas). The other two groups were fainter than K14, with the one on the NE a little richer and larger, and the one to the NW having five bright stars forming a "V" with some faint loops of stars running between. I thought perhaps they were all part of a single cluster that was somehow blown apart into different clumps, or perhaps had some dark nebulosity running through it.

Checking it upon coming inside, I find they are three different open clusters: King 14, NGC 146, and NGC 133.

They are in fact at different distances (K14 @ 8500 ly, NGC 146 @ 4700 ly, and NGC 133 @ 9000 ly). That NGC 133 has the brightest individual stars in the group must mean those stars are very bright indeed, given their distance.

How nice to come upon a group of open clusters by accident! It's nice to discover more objects than your atlas shows. And to have multiple open clusters in the FOV is a treat, as usually just one of them crowds the view.

I don't find very much about this group on the internet; only one image turns up on Google. http://www.ne.jp/asahi/nakaegaw/piz/tz-n0133.html So next time you have a chance, take a look!

Comet C/2013 US10 Catalina

From Mark McCarthy

Dec 15, 2015

This comet is special: Aside from having both dust and gaseous tails, the comet's speed has achieved escape velocity from our solar system. These next couple of months are your only chance to see this particular celestial object.

This morning at 5:30am from my Fremont, CA backyard, I found the comet straightaway. I first used 8x56 binoculars to sweep over from Mars (which has replaced Theta Virginis as a naked eye reference) to the field and could make out a moderately bright small fuzzy patch. I then set-up my 8" f/7.25 reflector in the right area in my yard to see the comet, which was in a slice of sky between a tree and a neighbor's house. Again using Mars as an orientation point, I could make out Zeta Virginis and pointed the telescope to it, then made a quick hop to the comet, which was near Upsilon Virginis.

At 42x the coma was fairly bright, round, bluish grey haze with a sharply brighter center. After some time I could begin to make out a bulge on the edge of the coma, which would be the beginnings of a tail. The comet was in the NW corner of a Sagittarius-shaped asterism, in the "spout."

I read that the comet responds well to a SWAN band filter. I was using a 35mm eyepiece for my initial observation, and hoped to use it for the filtered view since it would have an ideal exit pupil at 4.5mm. But I could not get the filter to thread onto it, so switched to a 22mm eyepiece instead. At 67x, 2.8mm exit pupil, the coma appeared brighter and larger, nearly reaching a nearby field star it did not reach in the unfiltered view. I could just barely detect dual tails: an extremely faint blunt and about half a degree long dust tail, and an excessively faint and wispy thin one degree long ion tail—reminiscent of seeing the Eastern Veil Nebula in light polluted skies. I'm guessing the higher magnification helped me see the dust tail, and the filter helped me see the ion tail. But both were really tough.

Seeing and transparency, which had been average before, took a turn for the worse. I had a look at Jupiter in case there were any transits happening (there weren't), and had a view of Mars and Venus, both mushy. At 6:10am I saw a long bright fireball meteorite near Hydra / Corvus, which left the faintest of smoke trails. I then noticed a bright satellite in Leo, headed SE, and tracked it with my finder scope. At times I was able to lead it into the center so it would rush through my eyepiece, a bright swift dot. I followed it all the way to the horizon. I've been looking for references today as to which satellite it was (ISS?) but so far have not identified it.
Is anyone taking a risk tonight  
[February 1, 2015]

On Feb 1, 2016, Ed Grover wrote:  
Its looking clear here in San Jose, but the clear dark sky forecast is mediocre and wunderground shows some moisture. Is anyone taking a risk tonight?

Ed Wong Feb 1, 5:59 PM  
Still working right now, but you should do some viewing if you get a chance. I wonder how Castor would look tonight? Its one of the brighter double stars out now.

Marilyn Perry Message 3 of 4, Feb 2 9:30 AM  
Yes, I did some viewing last night. I too saw the mediocre forecast, but there was not too much risk moving my grab and go equipment to my patio, so I did it. Still working on the AL carbon star list, I found a new carbon star that I really like—VY UMa. Not only is it bright (variable but never drops dimmer than mag 7) and colorful, but it also helps me hop from Dubhe to M81/M82. That used to be a very hard hop for me, but now I have an easily identifiable hopping star. I thought transparency was very good last night because I could see M81 nicely from my backyard, a difficult task due to light pollution.

Regarding doubles, I did not look at Castor, but I looked at one of my personal favorites, Algieba. It was sort of fuzzy, but I still love its pretty color. The previous night I split Beta Mon into three stars. I expected to only split that into two because I expected the high wind to cause bad seeing, but I was pleasantly surprised to clearly see three stars.

Ed Wong Message 4 of 4, Feb 2, 9:49 AM  
Thanks for sharing Marilyn. Glad you were able to get some viewing in. Another favorite and challenge is Sigma Orionis. A very nice group if you can split it.

http://oneminuteastronomer.com/812/quintuple-star-orion/

Mysterious star in the south
On 01/26/2016 07:53 PM, A Ratnam wrote:

I was on a plane heading towards Phoenix a couple of days ago when I looked out of my seat window. The winter sky southwards of Sirius was clear but boring (not much going on in Columba and Eridanus and Lepus). There was a very bright object just at the horizon. About -0.5 I'd say.

A quick check on SkySafari confirmed to me that there wasn't supposed to be anything there (seeing from Las Vegas since that's where I roughly was). I waited for several minutes and the point didn't move. So this was something more permanent than an airplane.

Ah, but I realized, I was at 30,000 feet. So I was seeing 'beyond' SkySafari's horizon. A couple of swipes and I got my confirmation. What I was seeing was Canopus, the second brightest star in the sky (an F0 giant that is actually much grander than Sirius on an absolute scale). Very cool.

Vini Carter Jan 26 2016, 9:34 PM  
I was studying that just the other night. I believe what you saw was Canopus. Its a very bright star (mag -0.65) that just arcs up to the horizon line, almost directly South for a couple of hours each evening. It never rises above the horizon at lower elevations, so you would most likely have to be in the air to see it.

Mark McCarthy Jan 26  
A bit further south and higher elevation (and good timing) helps: I saw Canopus from Fremont Peak last spring, through the slot in the southern hills from the observatory.

Teruo Utsumi Jan 29  
Canopus is just barely visible from atop Mt. Hamilton around February. You'll see a reference here: https://en.wikipedia.org/wiki/Canopus I've always thought it'd be a cool idea to have a Canopus viewing party from Lick Observatory. Don't know if it'll every come about.

Aravind Ratnam Jan 29  
That would be fantastic. Have any of us peered through any of Hamilton's telescopes?

Marianne Damon Jan 29  
Count me in!
I am a fairly recent member of the SJAA and wish to thank Dave Ittner for initiating me into this and many others for guiding me through this wonderful hobby.

While attending one of the ITSPs in Nov last year I had some great moon sightings. With a waxing moon just over 50%, the terminator exemplified a few fantastic features on the surface of moon. I pushed the magnifications to about 140X to 200x and got to see some awesome sights of the moon's craters. I have been a great fan of our pock-marked neighbor for a long time but my awe for this satellite’s beauty has since seen new heights! With just my iPhone’s camera I was able to take some pictures through the eyepiece aperture. Personally was quite happy with the results. Granted these may be very amateurish but above is one of my best. Sharing with you! Anand

Ground breaking ceremony for West Valley College’s new planetarium
From Natti Pierce-Thompson

I volunteered to help out with the 12/18/2015 ground breaking ceremony for the brand new Jean & E. Floyd Kvamme Planetarium. As some of you know, I’m actually a current student, and my passion for astronomy and SJAA was sparked after fulfilling a physical science general education requirement in Stellar Astronomy. I will be taking a class in Solar System Astronomy next spring with Benjamin Mendelsohn “just for fun.” :)

This brand new, three story facility will be state of the art. The plans include a hybrid dome design with a diameter 10’ larger than the current one, 4K projectors for presentations on the surface and a mechanical star field projector in the center of the room. Our current star field shows about 1,000 stars, and the new one will project approximately 8,000 stars utilizing fiber optics. The sound system will also be state of the art with a submersive sound system.

In addition to more storage around the lecture area, there will also be more open space in the front of the planetarium, so the building can be utilized by both the Arts & STEM classes. With the inclusion of a theatrical lighting system, live music performances and multimedia arts presentations are planned. The front lobby will include a large exhibit space, with a permanently installed pendulum and a small opening for a ray of natural sunlight to track along the walls and floor as the sun moves across the sky. On the roof, another dome will house an observatory with several remote operated telescopes installed.

At the ground breaking the guest speaker, from NASA, discussed the Kepler mission discoveries, and the search for planets in habitable zones. I was beyond excited to think about the possibilities of life beyond our little blue planet!

In just a couple of years, Saratoga might just be the location that everyone will want to explore space and view the heavens! --Natti, proud West Valley College student

New additions to SJAA library!
From Sukhada Palav
December 15, 2015

I am excited to announce that thanks to a very generous donation to SJAA library, we now have some more great books in store for members to check out. Here’s the list –

The First Three Minutes
The Red Limit
Black Holes and Warped Spacetime
Galaxies and Quasars
Sundials – Their Theory And Construction
The Milky Way
Space Shots
Comets
Cosmology + 1
Astrophotography II
Astrophotography
Smithsonian Astrophysical Observatory Star Catalog
The Astronomical Almanac – 1990 to 2000
Telescope Optics

As you can tell by the book titles, the central idea is to try to reach out all our readers by keeping variety of books and DVDs in our collection. In addition to these, we also have lots of books suitable for kids and young adults. I would highly encourage you all to check them out!

I would also like to take this opportunity to let our readers know that due to limited space, we have decided to give away most of our magazines collection. If there are any particular issues you are interested in, don’t hesitate to reach out to me at librarian.sjaa@gmail.com. You can find the current collection at SJAA Magazines.

If you have any suggestions/comments about SJAA library program, I can be reached at librarian.sjaa@gmail.com.
Subject: M45 - The Pleiades

From: Bruce Braunstein

Location: Mendoza Ranch
Date: February 6, 2016

OTA: Astrotech AT65EDQ
Mount: Atlas Pro AZ/EQ GT
Camera: Astro Modified Nikon D5100
Exposure:
  - 9 Lights x 600 secs
  - 10 Darks x 600 secs
  - 10 Bias
Processing:
  - Backyard Nikon
  - Open PHD 2.6
  - Astro Tortilla
  - Pixinsight 1.8
  - Photoshop CS6
Subject: First go @ the Horse head and sundry other stuff

From: PJ Mahany

Date: Dec. 31, 2015
Location: Yosemite
Contains: IC 435, NGC 2024, NGC 2023, Horsehead nebula, IC 434, The star Alnitak (ζOri)

Imaging telescope: ATM 6" F5 Newtonian
Imaging camera: Canon 60Da
Mount: Atlas EQ6 Atlas
Guiding telescope: Orion Miniguider 50mm
Guiding camera: Orion Starshoot Autoguider
Software: DSS, BYEOS, StarTools, SkyTools
Accessory: Paracorr ll
Frames: 25x420"
Integration: 2.9 hours
Subject: M31
Location: Henry Coe Main Overflow Lot
Date: 2015-11-28
From: Bruce Braunstein

Imaging Scope: Astro Tech AT65EDQ
Atlas Pro AZ/EQ-G mount
Guide Scope: Meade LX200 8"
Guide Camera - Meade DSI Pro II
Open PHD 2.5 Guide Software
Imaging Camera - Nikon D5100 - Modified
9 Lights x 300 secs, 10 Darks, 10 Bias
DSS - registering & stacking
PixInsight 1.8 - Post Processing
Kid Spot Jokes:

- Why can’t you trust an atom? Because they make up everything.
- Where are black holes found? In black socks.

Kid Spot Quiz:

1. What is another name for a falling star?
2. How many years (approximate) does it take for Haley’s comet to return to the solar system?
3. How many stars are in a septuple star system?

Did You Know?

Source: Astronomy Magazine March 2015 issue “500 Coolest Things”

In 1970, Celestron introduced the first commercially available Schmidt-Cassegrain telescope, the C8.

Nova Aquilae 1918, which peaked magnitude -0.5, was the brightest nova since the invention of the telescope.

On July 14, 2015 the New Horizons spacecraft flew by Pluto after a voyage of 3,463 days.

German astronomer Samuel Heinrich Schwabe discovered the sunspot cycle in 1843 after he had collected 17 years of solar observations. Although astronomers refer to this cycle as spanning 11 years, the average is 10.66, with some as short as nine and others as long as 14 years. We are currently in what is referred to as cycle 24.

The Sun contains 99.86 percent of all of the mass in our solar system.

Two septuple (7) star systems are known to exist: Nu Scorpii and AR Cassiopeiae.

The International Astronomical Union formalized the constellation boundaries in 1928.

The Greek astronomer Aristarchus of Samos (310-230 B.C.) was the first to propose the heliocentric system, effectively taking Earth out of the center of the solar system and replacing it with the Sun.

The Huygens probe became the first human-made object to land on Saturn’s moon Titan on January 14, 2005.

Saturn is the only planet with a density less than water.

The Sun converts 4 million tons of mass into 384.6 septillion watts of energy each second.

Kid Spot Quiz Answers:

1. Meteor
2. 75 years
3. 7
From the Board of Directors

Announcements

SJAA needs new people to help out with the various programs. Contact any Board member for details on programs where help is needed.

January 2016 Membership Report:
Total current membership: 358

On March 19th, in lieu of the board and general meetings, a mini work party will take place to prepare for the SJAA Swap Meet the following day.

The SJAA Annual Swap Meet will be held Sunday, March 20th starting at 12pm. For those bringing items to sell, the doors will be opened up at 11am.

Board Meeting Excerpts

November 21, 2015

In attendance
Dave Ittner, Lee Hoglan, Bill O’Neil, Glenn Newell, Rob Jaworski, Vini Carter, Teruo Utsumi
Absent: (excused) Ed Wong (proxy to Dave)
Guests: Leslie Carter, Tracy Avent-Costanza

Fix It Administration
Vini reported that administration of Fix It is overly cumbersome. Dave Ittner to work on solution.

City of San Jose (CoSJ) Reuse Bid Process
Rob, Vini, and Leslie attended the meeting by the City of San Jose for the use of CoSJ facilities (in our case Houge Park). Rob’s impression is that it’s more “going through the motions”. The process is more of a formality and he sees little difficulty in our continued use of Houge Park Bldg 1.

Replacements
SJAA needs new people to help out with the various programs. Existing resources are stretched thin. All Board members were asked to keep an eye out for candidates to help out and interact w/ the membership.

December 19, 2015

In attendance
Dave Ittner, Ed Wong, Lee Hoglan, Glenn Newell, Rob Jaworski, Vini Carter, Teruo Utsumi
Absent: (excused) Bill O’Neil.

Fix It Administration
Dave Ittner will setup a Fix It email account to provide Vini Carter a better tool for administration of applicants who wish to use the program.

Publicity
Rob submitted a draft banner, pro bono. Two submissions were received for review.

Annual Auction
In addition to SJAA members Dave Ittner will ping The Astronomy Connection (TAC) about the benefits of the SJAA Auction versus the Swap Meet and make a Decision by January 2016. Discussion will continue on the SJAA forum.

Imaging equipment
Glenn Newell talked about the possible need for a loaner guide scope. Glenn to draft support/management plan and recommend a budget.

ASP - Armstrong scholarship
Rob Jaworski met with the Astronomical Society of the Pacific regarding the previously discussed astronomy education scholarship to be named after Robert Armstrong. ASP will draft guidelines. The plan is to proceed with a memorandum of understanding.

January 23, 2016

In attendance
Guests: Rob Chapman, Don Gardner, Garry Chock, Philip Lieu, Paul Mancuso

Awards Night
Board meeting will start at 5:00pm instead of the regular 6:00pm start at the February 20th Annual Membership Meeting due in part to allowing enough time for the awards. The general meeting will start at 6:30. [secretary’s note: After the board meeting it was decided to start the board meeting at 5:00pm.] Some discussion of candidates took place. Discussion will be continued on the SJAA forum.

Loaner Program
Glenn Newell will present his proposal to purchase a guide scope setup for the loaner program at the February 2016 board meeting.

Robert Armstrong Scholarship
After some discussion, we’re waiting on the Astronomical Society of the Pacific (ASP). Rob will follow up on status.

Event Schedule for Ephemeris

The need for an annual schedule of SJAA events for the editor was expressed so the notices for the events can be published in the Ephemeris. Action is TBD.

Vice President
Ed Wong was appointed as club vice president by the club President; Dave Ittner.

Auction vs. Swap Meet
Dave solicited opinions from SJAA members via the announce list and The Astronomy Connection (TAC). All responses favored a swap meet over the traditional live auction format. As a result, the decision was made to replace the spring auction with a swap meet. Some details of running the swap meet were discussed. Further discussions to be held on the SJAA forum.

Publicity Budget
Rob reported just $300 of the $3000 from the 2015 CY publicity budget was used and requested $2000 for 2016 CY. The motion for the 2016 publicity budget was approved by all.

Imaging
Mark Striebeck may not be able to continue as chair of the Imaging Special Interest Group (SIG). Dave Ittner will contact Mark to ascertain his future plans.

City Reuse Bid
The City of San Jose sent an online survey to be distributed to residents in the Houge Park area on resident use of the Houge Park facilities. Rob to forward the survey to the announce list.

Printer for Houge Park
Teruo Ustumi proposed the purchase a laser printer for club use at Houge Park. A budget was set and the purchase was approved by all.
SJAA Library!
SJAA offers another wonderful resource; a library with good astronomy books and DVDs available to all of our members that will interest all age groups and especially young children who are budding astronomers! Please check out our wish list on the SJAA webpage: http://www.sjaa.net/sjaa-library/

Telescope Fix It Session
Fix It Day, sometimes called the Telescope Tune Up or the Telescope Fix It program is a real simple service the SJAA offers to members of the community for free, though it’s priceless. The Fix It session provides a place for people to come with their telescope or other astronomy gear problems and have them looked at, such as broken scopes whose owners need advice, or need help with collimating a telescope.
http://www.sjaa.net/programs/fixit/

Solar Observing
Solar observing sessions, headed up by Bill O'Neil, are usually held the 1st Sunday of every Month from 2pm - 4pm at Houge Park weather permitting. Please check SJ Astronomy Meetup for schedule details as the event time / location is subject to change:
http://www.meetup.com/SJ-Astronomy/

Quick START Program
The Quick START Program, headed up by Dave Ittner, helps to ease folks into amateur astronomy. You have to admit, astronomy can look exciting from the outside, but once you scratch the surface, it can get seemingly complex in a hurry. But it doesn't have to be that way if there’s someone to guide you and answer all your seemingly basic questions.

The Quick Start sessions are generally held every other month.
http://www.sjaa.net/programs/quick-start/

Intro to the Night Sky
The Intro to the Night Sky session takes place monthly, in conjunction with first quarter moon and In Town Star Parties at Houge Park. This is a regular, monthly session, each with a similar format, with only the content changing to reflect what's currently in the night sky. After the session, the attendees will go outside for a guided, green laser tour of the sky, along with a club telescope to get a better look at celestial objects.

http://www.sjaa.net/programs/intro-to-the-night-sky/

Loaner Program
The purpose of this program, headed up by Manoj Koushik, is for SJAA members to evaluate equipment they are considering purchasing or are just curious about. Check out the growing list of equipment below. Please note that certain items have restrictions or special conditions that must be met. If you are an SJAA member and an experienced observer or have been through the SJAA Quick START program please fill this form to request a particular item. Please also consider donating unused equipment.
http://www.sjaa.net/programs/loaner-telescope-program/

Astro Imaging Special Interest Group (SIG)
(SIG), In February, Bruce Braunstein agreed to lead the SIG group. SIG has a mission of bringing together people who have an interest in astronomy imaging, or put more simply, taking pictures of the night sky. The Imaging SIG meets roughly every month at Houge Park to discuss topics about imaging. The SIG is open to people with absolutely no experience but want to learn what it’s all about, but experienced imagers are also more than welcome, indeed, encouraged to participate. The best way to get involved is to review the postings on the SJAA Astro Imaging mail list in Google Groups.
http://www.sjaa.net/programs/imaging-sig/

Astro Imaging Workshops & Field Clinics
Not to be confused with the SIG group this newly organized program championed by Glenn Newell is a hands on program for club members, who are interested in astro-photography, to have a chance of seeing what it is all about. Workshops are held at Houge Park once per month and field clinics (members only) once per quarter at a dark sky site. Check the schedule and contact Glenn Newell if you are interested.

http://www.sjaa.net/programs/astro imaging-workshop/

School Star Party
The San Jose Astronomical Association conducts evening observing sessions (commonly called “star parties”) for schools in mid-Santa Clara County, generally from Sunnyvale to Fremont to Morgan Hill.

Contact SJAA's Jim Van Nuland (Program Coordinator) for additional information.
http://www.sjaa.net/programs/school-star-party/

SJAA Contacts
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Vice President: Ed Wong
Treasurer: Rob Jaworski
Secretary: Teruo Utsumi
Director: Lee Hoglan
Director: Bill O'Neil
Director: Glenn Newell
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SJAA Ephemeris, the newsletter of the San Jose Astronomical Association, is published quarterly.

Articles for publication should be submitted by not later than the 20th of the month of February, May, August and November. (earlier is better).
San Jose Astronomical Association
P.O. Box 28243
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San Jose Astronomical Association Annual Membership Form
P.O. Box 28243 San Jose, CA 95159-8243

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Questions? Send e-mail to: sjamemberships@gmail.com

Bring this form to any SJAA Meeting or send to the address (above). Make checks payable to “SJAA”, or join/ renew at: http://www.sjaa.net/join-the-sjaa/

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