From the President
Rob Jaworski

Last month’s board meeting, held on August 9, 2014, saw several important topics raised, discussed, and decided. Allow me to highlight them.

The San Jose Astronomical Association is an all-volunteer organization. It’s been that way since its founding nearly sixty years ago. All the programs, events and offerings, most of which are available not just to members, but the public, with most being free, are entirely produced by volunteers in the community. Some roles are pretty easy to do, such as opening or closing the Friday night In Town Star Parties at Houge Park. Others take considerably more time and attention. The officer position of Treasurer would certainly be considered a high touch job. Another position, or job, that is incredibly time consuming is the role of editor of the SJAA publication, The Ephemeris.

For many years, The Ephemeris has been published on a monthly basis. The goal has been to release a newsletter of sufficiently high quality so that members and others could look forward to spending quality time with it every month, staying up on not just the latest news in professional astronomy, but also what the club is up to and what fellow members have been doing and where they have been going to observe or image. You may have even noticed the new Kid Spot that appeared this year. Over the years, we have noticed that while the subscriptions for the printed-and-mailed edition have stayed fairly constant, at about 15% of the members opting for it, the readership has remained relatively low, based on download metrics collected from the website. It was becoming obvious that the effort-to-value ratio has been exceedingly high, probably for some time.

The board debated on solutions to this problem and various ideas were presented. The most compelling idea was rooted in a look around at what other astronomy and member-based nonprofit organizations are doing. What we found was that short of ending the publication, some clubs publish on a less frequent schedule. That appeared to be a viable solution for the SJAA, as we can still use The Ephemeris as the official communications vehicle of the club and maintain a high quality bar, but not require volunteers to expend the effort to publish it with such frequency.

At the previous board meeting, a resolution was presented to amend Article 14, Section 1 of the bylaws to change the publication frequency from monthly to quarterly. This resolution passed, as did a separate but related motion to delay the start of this new cadence until the start of next calendar year.

I’d like to send the board’s collective thanks to the volunteers who contribute their time and skills in producing The Ephemeris, and we hope that this change provides the flexibility to continue using those skills, but not under such frequent deadlines.

Speaking of volunteers... We are pleased to announce that Bill O’Neil has agreed to fill the one open board seat, and the board unanimously and happily voted him on. Bill has been a very active volunteer with the solar program and other outreach events. We are pleased to have him!
Hubble Revisits a Globular Cluster's Age

This new NASA/ESA Hubble Space Telescope image shows the globular cluster IC 4499. Globular clusters are big balls of old stars that orbit around their host galaxy.

It has long been believed that all the stars within a globular cluster form at about the same time, a property which can be used to determine the cluster's age.

For more massive globulars however, detailed observations have shown that this is not entirely true - there is evidence that they instead consist of multiple populations of stars born at different times.

One of the driving forces behind this behavior is thought to be gravity: more massive globulars manage to grab more gas and dust, which can then be transformed into new stars.

IC 4499 is a somewhat special case. Its mass lies somewhere between low-mass globulars, which show a single generation build-up, and the more complex and massive globulars which can contain more than one generation of stars.

By studying objects like IC 4499 astronomers can therefore explore how mass affects a cluster's contents. Astronomers found no sign of multiple generations of stars in IC 4499 - supporting the idea that less massive clusters in general only consist of a single stellar generation.

Hubble observations of IC 4499 have also helped to pinpoint the cluster's age: observations of this cluster from the 1990s suggested a puzzlingly young age when compared to other globular clusters within the Milky Way. However, since those first estimates new Hubble data have been obtained and it has been found to be much more likely that IC 4499 is actually roughly the same age as other Milky Way clusters at approximately 12 billion years old.

Credit: space.com

Triangulum galaxy snapped by VST

The VLT Survey Telescope (VST) at ESO’s Paranal Observatory in Chile has captured a beautifully detailed image of the galaxy Messier 33. This nearby spiral, the second closest large galaxy to our own galaxy, the Milky Way, is packed with bright star clusters, and clouds of gas and dust. The new picture is amongst the most detailed wide-field views of this object ever taken and shows the many glowing red gas clouds in the spiral arms with particular clarity.

Messier 33, otherwise known as NGC 598, is located about three million light-years away in the small northern constellation of Triangulum (The Triangle). Often known as the Triangulum Galaxy it was observed by the French comet hunter Charles Messier in August 1764, who listed it as number 33 in his famous list of prominent nebulae and star clusters. However, he was not the first to record the spiral galaxy; it was probably first documented by the Sicilian astronomer Giovanni Battista Hodierna around 100 years.

Although the Triangulum Galaxy lies in the northern sky, it is just visible from the southern vantage point of ESO’s Paranal Observatory in Chile. However, it does not rise very high in the sky. This image was taken by the VLT Survey Telescope (VST), a state-of-the-art 2.6-metre survey telescope with a field of view that is twice as broad as the full Moon. This picture was created from many individual exposures, including some taken through a filter passing just the light from glowing hydrogen, which make the red gas clouds in the galaxies spiral arms especially prominent.

Credit: ESO.

Solar Sunday, August 03
From Michael Packer

Is Summer over as soon as the days get shorter? Nope – the sunshine hums along. It’s even more the case with the solar cycle. Sol Min is 5.5 years away! The sunspot count on the 1st Sunday of August was 158 (NOAA). Plus we had one spectacular prominence which stood out from the others and changed its shape over the course of the party (see picture below).

Observe The Sun Safely! Never look at the Sun without a proper filter!
SJAA YOSEMITE TRIP JULY 2014
From Michael Packer

We were concerned about the fire and clouds but the reality was we showed Saturn, Iridium Flares, the host of significant objects inside and outside our galaxy to folks from Europe, Africa, Oceania, the Americas and Asia.

One highlight of the weekend was an Iridium Flare-passing over during pre-star party talk. Morris Jones asked “what’s the difference between astrologers and astronomers?” Answer: “Astronomers predictions come true” Where-in Morris told audience to look up for the flare and score – the satellite passed overhead to the delight and applause of audience.

Other highlights of the weekend: scope views of climbers on Halfdome, M55 in a large dob, Swan and Veil (nice view Terry and Gary). Saturn of course – it rings but also it’s moons. M6, M7 and lots of planetary nebulae in Aquila (thanks Rus). Also several shooting stars both nights along with the Crème de la crème – Pleiades “un-occulted” or rising over Half Dome in the wee hours. Below are some pics of the weekend.

Thanks to our SJAA volunteers. Left to Right: Morris Jones, Philip Lieu, Don Lieu, Jane Houston Jones, Jim Van Nuland, Terry Kahl, Gary Mitchell, Kenichi Miura, Paul Mancuso, Michael Packer, Jose Marte, Greg Bradburn, Gary Chock, Rus Belikov
Grandview Campground Trip Report – July 2014
From Gary Chock, Jose Marte

Here’s a report on our visit to Grandview Campground on Tue & Wed July 22-23, 2014.

Grandview Campground is in Inyo National Forest on the way up to the Ancient Bristlecone Pine Forest. It is about 8 to 9 hours from the Bay Area depending on your driving pace. It is at 8560′ elevation. There are 26 campsites nicely spaced with trees between offering privacy and shielding from other camper’s lights and campfires. No water, pack your trash. At least 3 vault toilets. At this altitude, the only wildlife problems seem to be squirrels (no bears).

http://www.fs.usda.gov/recarea/inyo/recreation/recarea/?recid=20268

Weather-wise, we were lucky. A monsoon weather pattern was in place over the Sierras for ~2 weeks and dissipated just before we left the Bay Area. It reformed Sat July 26 after we left.

While Bishop was baking in 105 degrees in the daytime, Grandview was in the 80′ s overnight. While we expected great weather, seeing, and transparency, they mentioned times it got down to 16 degrees. Other times windy.

I will keep in mind Grandview for a revisit, planning on keeping things flexible and checking the weather a lot. Hopefully synchronizing excellent weather, seeing, and transparency. Here are convenient links for checking:

http://cleardarksky.com/c/GrandVCAkey.html?

http://mammothweather.com/

http://bishopweather.com/

There are two observations I enjoyed that exemplified to me the excellent dark skies we had at Grandview Campground.

Viewing M7 Ptolemy’s Cluster with my 20×80 binoculars, the stars of this splendid open cluster were brilliant points in a dark field that seemed to be suspended in three dimensions. The binocular-mind integration effect seemed to connect the star-vertices with faint blue filaments. Stunnig.

Viewing M13 The Great Hercules Cluster with my 10″ Dob, the stars of this spectacular globular cluster were fine pinpoints in a velvety dark field. My mind connected these points, arranging them in three dimensions as facets of a diamond. Wondrous.

(From Jose)

I joined Gary Chock for a visit to The Grandview Campground (GV) in the Inyo-White Mountains, nearby Big Pines in California. Gary’s comments regarding the seeing/transparency darkness accurately describes just how terrific conditions were for observing. I’ve only been involved in the hobby for just over a year, but the couple of nights we camped were easily the best sessions I have experienced.

I’m an observational astronomer using a 14″ Orion Dobsonian telescope. I don’t use computer guided tools just a Telrad, 9×50 finder, and usually paper finder charts. Basically, I was able to find everything that I intended to see. The only limiting factor was the fact that I needed to sleep and plus my inexperience at being in a premium dark site. It is hard deciding what to look for when everything seems possible to find. My enthusiasm probably caused me to waste some time and energy because I found myself swooping from one side of the sky to the other, feasting on eye-candy, rather than honing in on a particular location.

To describe the conditions I will elaborate on one object. Just about every astronomy book points out the Whirlpool Galaxy, M51, as being “bright” and “spectacular”. To me this has been a source of frustration, and even a minor disappointment, since it is invisible from my driveway in San Jose. At our local, semi-dark sites (Mendoza Ranch or RCDO) M51 is readily available and appears to be a low-contrast,lop-sided figure-eight. It is brighter and larger but still a “faint fuzzy” without detail. At the Grandview, however, (~165x) I could see its spiraling arms and I didn’t really need to use averted vision! Very cool and yes, spectacular. In fact, and this could be from the delirium of lack of sleep, I thought I saw M51, naked-eye, as a fuzzy, dim star.

This trip was actually my second time to the White Mountains. Last August, during the Perseids, I spent a night at the Patriarch Grove, one of the areas where the amazing Bristle Cone Pines grow. (FYI camping is not allowed at the Patriarch Grove.) It is just a few miles away from the Grandview Campground but at 11,000 feet. Again, observing conditions were fantastic, but I didn’t bring enough warm clothing and spent most of the night, uncomfortably cold in my car.

If you intend to go the Inyo-White Mountains be prepared for extreme cold and heat. But also be prepared for extreme natural beauty. Even if you encounter the misfortune of a cloudy night, you will still be in one of the most spectacular landscapes on earth. The view of the Eastern Sierra peaks, rising upwards of 10,000 feet from Owens Valley is absolutely magnificent. Aside from the great astronomy, there is fantastic hiking, birding, fishing, geology, and even archeology to experience in the Eastern Sierras. It is only about eight hours away from San Jose and plus you’ll have the pleasure of driving through the back-country of Yosemite National Park and seeing Mono Lake. Furthermore, this area is vast. Finding a campsite or lodging is very easy compared to Yosemite.

Editor’s Note: Documenting your visits to dark sky sites or any other astronomy related place is a good way to help you remember your visit, as well as help you develop your observing skills. Just as writing and rewriting your class notes in college in itself helped you study and master the material, writing and keeping notes of trips helps you become a better visual observer. Please consider submitting any site notes or observing reports to the SJAA for posting on the blog or for publishing in the newsletter, The Ephemeris. You’ll be glad you did!

Photo of the north horizon at campsite 4
Residents of Cambrian came together in their corner of San Jose at the day-long Celebrate Cambrian festival. Food, Music and of course SJAA. Club President Rob Jaworski spearheaded SJAA’s 5th consecutive year of involvement in the community celebration and manned the SJAA booth. SJAA volunteers Sandy Mohan, Wolf Witt, Kevin Lahey, Teruo Utsumi and Rebecca Jaworski brought solar equipment and entertained both kids and adults throughout the afternoon.

Celebrate Cambrian Festival  
August 24, 2014

Photo Credits: Sandy Mohan
Kid Spot Jokes:

- Why did the alien want to leave the party? (The atmosphere wasn’t right)
- What is an astronaut’s favorite snack? (Space chips)

Kid Spot Quiz:

1. What is the second biggest planet in our solar system?
2. What is NASA’s most famous telescope?

Kid Spot Night Sky Challenge: September 2014

See if you can spot the following objects in the sky:

⇒ Mercury above the western horizon
⇒ Spica
⇒ Antares
⇒ Saturn

http://skyandtelescope.com/observing/ ataglance

Constellations

Cygnus

is a northern constellation lying on the plane of the Milky Way, deriving its name from the Latinized Greek word for swan. The swan is one of the most recognizable constellations of the northern summer and autumn, it features a prominent asterism known as the Northern Cross. Cygnus was among the 48 constellations listed by the 2nd century astronomer Ptolemy, and it remains one of the 88 modern constellations. Cygnus is most visible in the evening from the early summer to mid-autumn in the Northern Hemisphere.

Normally, Cygnus is depicted with Delta and Epsilon Cygni as its wings, Deneb as its tail, and Albireo as the tip of its beak.

Cygnus contains Deneb, one of the brightest stars in the night sky and one corner of the Summer Triangle. Albireo, designated Beta Cygni, is a celebrated binary star among amateur astronomers for its contrasting hues. The primary is an orange-hued giant star of magnitude 3.1 and the secondary is a blue-green hued star of magnitude 5.1 and is divisible in large binoculars and all amateur telescopes.

There is an abundance of deep-sky objects, with many open clusters, nebulae of various types and supernova remnants found in Cygnus due to its position on the Milky Way.

M39 (NGC 7092) is an open cluster 950 light-years from Earth that is visible to the unaided eye under dark skies. It is loose, with about 30 stars arranged over a wide area. Another open cluster in Cygnus is NGC 6910, also called the Rocking Horse Cluster, possessing 16 stars.

The North America Nebula (NGC 7000) is one of the most well-known nebulae in Cygnus, because it is visible to the unaided eye under dark skies, as a bright patch in the Milky Way. However, its characteristic shape is only visible in long-exposure photographs — it is difficult to observe in telescopes because of its low surface brightness. It has low surface brightness because it is so large; at its widest, the North America Nebula is 2 degrees across. Illuminated by a hot embedded star of magnitude 6, NGC 7000 is 1500 light-years from Earth.

Kid Spot Quiz Answers:
1) Saturn
2) Hubble
School Star Parties
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. For those who are outside of that area, please see our suggestions on the SJAA webpage under ‘Classes-Programs / School Star Party’
The co-coordinator for SJAA is Jim Van Nuland.
Please see the SJAA webpage for a step-by-step procedure for setting up a school star party.

SJAA Library
From Sukhada Palav

Stop by the book cabinet to check the SJAA library out next time you are Houge Park for one of our events! I hope our budding astronomers group will enjoy reading these books!!!

For more information on SJAA Library, please check out -
http://www.sjaa.net/sjaa-library/
If you have any questions or comments, I can be reached: librarian.sjaa@gmail.com.

Advanced Loaner Telescope & QuickSTARt Programs
From Dave Ittner

http://www.sjaa.net/advanced-loaner-telescope-program/

The purpose of this program 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 contact Dave Ittner to request a particular item. Please consider donating unused equipment – learn more about this on the SJAA website.

FixIt Program
From Ed Wong

The FixIt session provides a place for people to come with their telescope or other astronomy gear problems and have them looked at. The session is held every first Sunday of the month, from 2 to 4 PM (coinciding with the Solar Observing sessions) at Houge Park.

Appointments are needed for service in order for us to prepare what we need to bring in order to provide you with the best service possible. Appointment sign up cutoff time is Sat noon before the Sunday FixIt session.

Please fill out the form on the SJAA webpage under ‘Classes-Programs / FixIt’ to schedule an appointment to help us be better prepared to assist you.

Binocular Stargazing
From Ed Wong

Binocular Stargazing is hosted by the Santa Clara County Open Space Authority with help from members of the San Jose Astronomical Association.
Want to learn the night sky? Did you know that you don't need to spend a ton of money on a telescope to do so? All you need is a decent pair of binoculars.
Please bring 10x50mm binoculars (or larger, tripod recommended on binoculars larger than 10×50), a chair to view in comfort, and a red lens flashlight, and warm clothes (extra layers). This event is held at Rancho Canada del Oro.

Solar Observing
From Michael Packer

The core of the Solar Observing program is the monthly observing sessions at San Jose's Houge Park.Â On the first Sunday of every month, from 2 to 4:00PM PT, SJAA members set up the club's Lunt for the public to come view our nearest star. Additionally, members bring their own solar telescopes, such as Coronado PSTs to projection systems, with which to compare views.

From the Board of Directors

Announcements
New Board Member
Bill O’Neil volunteered and has been accepted to fill the open Board seat.

SJAA 60 Years Old
SJAA will be 60 years later this year. Keep an eye out for future announcements regarding commemorating the occasion.

Annual Show & Tell
Saturday, September 6th
Bring your pictures, any piece of equipment you put together, maybe an astronomy related trip you have taken; just about anything goes. This is your chance to show your stuff.

Board Meeting Excerpts August 09, 2014
In attendance
Rob Jaworski, Greg Claytor, Lee Hoglan, Dave Ittner, Rich Neuschaefer, Teruo Utsumi, Ed Wong, Mike Packer

Ephemeris Frequency / Mailing
The resolution to amend Article 14, Section 1 of the SJAA bylaws to change the publication frequency from monthly to quarterly was voted on and passed. As it did a separate but related motion to delay the start of the new frequency until the start of next calendar year.

FixIt Program Tools
The Board approved Ed Wong’s request to purchase specific tools to augment the Club FixIt Program; the majority of the issues relate to columnization.

New Board Member
Bill O’Neil volunteered for the open board member position and his offer was unanimously approved by the Board. Welcome aboard Bill!

Solar
Michael is contemplating a potential site change for the solar program to Campbell Park. Michael also plans to use the 2nd Sunday of the month as a backup date for solar observing.

Observing equipment
Dave Ittner introduced Tom Tanquary who has volunteered to run the Club equipment donation program.

S J A A C O N T A C T S
President: Rob Jaworski
Vice President: Lee Hoglan
Treasurer: Michael Packer
Secretary: Teruo Utsumi
Director: Greg Claytor
Director: Dave Ittner
Director: Ed Wong
Director: Rich Neuschaefer
Director: Bill O’Neil

Beginner Class: pending
Fix-it Program: Ed Wong
Imaging SIG: pending
Library: Sukhada Palav
Loaner Program: Dave Ittner

Ephemeris Newsletter -
Editor: Sandy Mohan
Prod. Editor: Tom Piller
Publicity: Rob Jaworski
Questions: Lee Hoglan
Quick STARt: Dave Ittner
Solar: Michael Packer
School Events: Jim Van Nuland
Speakers: Teruo Utsumi

E-mails: http://www.sjaa.net/contact

SJAA Contacts
San Jose Astronomical Association, is published monthly

Articles for publication should be submitted by the 20th of the previous month.

San Jose Astronomical Association
P.O. Box 28243
San Jose, CA 95159-8243
http://www.sjaa.net/contact
San Jose Astronomical Association Membership Form
P.O. Box 28243 San Jose, CA 95159-8243

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Subscribing to Sky & Telescope magazine through the SJAA saves you $5 off the regular rate. (S&T will not accept multi-year subscriptions through the club program. Allow 2-3 months lead time.)

I prefer to get the Ephemeris newsletter in print form (Add $10 to the dues listed on the left). The newsletter is always available online at:

http://www.sjaa.net/sjaa-newsletter-ephemeris/

Questions? Send e-mail to sjaamemberships@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/