

The Ephemeris

May 2014

Volume 25 Number 05 - The Official Publication of the San Jose Astronomical Association



Houge Park May Events

Friday, May 2

In-Town Star party: 9-11pm

Note: **Alternate Location**

Bear Creek Stables

Sunday, May 4

Solar observing: 2-4PM

Fix-It Day: 2-4PM

Saturday, May 10

Board of Directors Meeting: 6-7:30pm

General Meeting Social Time: 7:30-8pm

Guest Speaker; Dr. Sandra Faber: 8pm

Topic: Lick Observatory: Vision and Resources



Friday, May 23

Beginner Astronomy Class: 8:15-9:15pm

In-Town Star party (Houge): 9:15-11:15pm

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Treasurer:	Michael Packer
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Letter from the Editor

The Medicean Stars

Dear SJAA Members and Friends,

I hope you had the chance to catch a glimpse of the lovely lunar eclipse on April 15. If you missed it, not to worry - another chance will present itself on October 8, 2014. I find that celestial events such as these transport me back to historical times when great scientific discoveries were made, and thought that I would share a story from my recent travels. On a recent trip to Florence, I visited the Galileo Science Museum. This came as a nice change after some oversaturation with Renaissance art (mostly nude sculptures) and paintings (mostly Madonna and the Child) in the nearby museums. A colleague had recommended that I visit this museum and I am glad I took up on his recommendation. The Medici family, great patrons of the arts and sciences, led and looked after a thriving Florence in the 15th and 16th centuries. In the early 1600s, peering through his rudimentary telescope, Galileo became the first human to see three moons of Jupiter. He named these heavenly bodies after his Florentine patrons, calling them the "Medicean Stars."

It was absolutely amazing to see Galileo's own original simple telescopes on display. I tried to recapture what Galileo might have felt when he saw Jupiter's moons; as the poet Robert Browning put it, it must have been akin to "the first fine careless rapture." The telescope built by Galileo had a magnifying power of 20! Hollow Tubes, lenses and mirrors, oh my! But this simple instrument was enough to revolutionize the world of astronomy - and it's remarkable the same basic principles used by Galileo underpin the telescopes and astronomical tools we use today. It is for good reason that Galileo is regarded as the Father of Modern Observational Astronomy.

Realizing the enormous potential of his own discovery, Galileo put it to good use - describing the physical attributes of Mars, phases of Venus, Moon's craters, the rings of Saturn, and the sunspots. Galileo went on to build and improve upon several other scientific instruments like the military compass (to



Galileo's telescopes



The Jovilabe

aid oceanic navigation), pendulum clock, among others. One instrument that was particularly fascinating was the Jovilabe - with this instrument, Galileo was able to tabulate the orbital periods of Jupiter's satellites. The museum was not crowded except for a gaggle of bored schoolchildren and a young school teacher in a corner bravely trying to teach Newton's Laws of Motion. I couldn't help lamenting the lost interest in science amongst today's children. The museum has a lovely view of the Arno River and as I looked through an open window I tried to imagine how medieval Florence would have reacted to Galileo's discoveries - a handful of

people in might've taken to the streets in anger, condemning Galileo; a handful of healthy skeptics including the rich Medici family members who might've wanted to see the moons for themselves - perhaps a private Star Party for the Medicis; a handful of believers who might have recognized the enormous potential of Galileo's

discoveries and quietly followed him - in other words it would've been a lot like today - only without the Internet and Twitter! The museum is also famous for displaying the skeletal remains of Galileo's thumb and middle finger. There is no doubt that scientific discoveries of the 21st century and beyond will be displayed and preserved digitally (no pun intended) perhaps forever, and moments of first fine careless rapture may still be recaptured albeit more rarely by future generations.

Sandy Mohan

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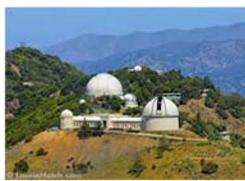
Guest Speaker May 10th

From Michael Packer

World Renowned Astrophysicist **Dr. Sandra Faber**, Director Of UC Observatories, will talk on The Research and Vision of Lick Observatory Saturday, May 10th, 8pm, at Hogue Park!



Dr. Sandra Faber



Lick Observatory

Some of you may have heard that Lick Observatory may close due to funding issues. Sandra Faber and other astronomers throughout California and beyond are working to save Lick for the simple reason that research there is now, and in the future, viable. Vital in fact. Join Sandra at our monthly program as she talks on the future of Lick Observatory. The observatory the South Bay sees from its own backyard.

How You Can Help?

SJAA Will Match Your Donation At Sandra Faber's Talk!

The best way you can help save Lick is to get the word out and make a tax deductible donation here:http://www.ucolick.org/SaveLick/help_save_lick.html

But you can double that donation at Sandra Faber's SJAA talk. The SJAA board approved matching funds and so will match total contributions during Sandra Faber's talk of up to \$1500. If you give \$10, SJAA will match that and make it \$20. If you donate \$100 SJAA will match that and give or add a year to your new or continuing membership. Or for of \$100 or more well give you the 2014 Royal Astronomical Handbook (\$25 value) while supply lasts.

SJAA Yosemite Star Party

From Jim Van Nuland

The annual SJAA Yosemite star party will be held on July 25 and 26, at Glacier Point in Yosemite National Park. Up to 30 people will be given free admission and camping, in exchange for two public events on Friday and Saturday evenings. In what time is left, we can be tourists. We are expected to have at least one scope per two people, and to attend both star parties, not just Friday or Saturday. For these reasons, this is probably not suitable for a family camping trip. The camping is rough by modern standards: no dining room, no showers, no hot water. Read about it on the SJAA Yosemite page <<http://www.sjaa.net/school/yosemite.htm>> and the Yosemite FAQ page at <<http://www.sjaa.net/school/yosefaq.htm>>. Then contact me with remaining questions. That first page also has sun and moon rise and set times. The luck of the draw went with us this year -- this weekend is the 2nd choice on our request list. The moon is new on Saturday! If you can tolerate the limitations, tell me the number of people you'll have, and the number of scopes that will be set up for the public. E-mail me at <jvn@sjpc.org>. Priority is given to SJAA members. Clear Skies!

Galaxy Quest at Hunting Hollow

From Ed Wong

This is my observing report from Sat. 4/19 at Hunting Hollow Lot. On Sat 4/19 was the Starry Nights event at RCDO. With the event growing in popularity, the turn out for the event has been overwhelming to the point that there have been not been enough parking spaces for astronomers or the public. In an effort not to have to turn away as-

tronomers coming to support the event we provided an overflow site at the Hunting Hollow Lot where a total of 7 observers showed up. I arrived by 8pm and there were already people who were setup and ready to go. We had a pretty good assortment of scopes: a 14" dob, several nice refractors, and binoculars. I was on a quest to find galaxies so I brought my 12" SCT.

The evening started with most of us starting looking at Jupiter. I could see Europa just peeking around the left side of Jupiter which was pretty cool. As it got dark by 9:30pm I started to look for the galaxies. First up was the Leo Triplet. Had a great view of M65, M66 in the view. NGC3628 was out of the field of view. The long focal length of the SCT only provides .92 degree field of view with a 40mm 72 degree eyepiece. From there I went to another nice triple in Leo M105, NGC 3371, NGC 3373 this time all 3 galaxies in the FOV. M95, M96 was just over slightly so I look at the pair too. Next up was the fabulous Markarian Chain in Virgo which includes M84, M86. Moving over to it, it was fantastic! 5 galaxies in the same FOV. This object has 13 galaxies in it. I was to see about 7 of the 13 galaxies moving around that area.

Other galaxies view were M51, nice view including the companion and the spiral arms visible. M64 fantastic view showing the spiral clouds off of the galaxies. M63, M81, M82, M94, M101, M106, M108 M109. One other bonus object to mention, I also saw the C/2012 K1 (Panstarrs) comet (mag 8.9), it was in the constellation of Bootes. The best SQM meter reading of the night was 20.93. We packed it up by 11:30 as it the conditions started to get bad and clouds were on the way from the west. Overall it was the most galaxies I have viewed in one night.

Coyote Lake Dam

From Tom Piller

This is my very first observing report so bear with me. The date was Friday, April 18th and the site was Coyote Lake Dam, about 15 minutes further down the road from Mendoza Ranch and West of Gilroy. This is a County Park, it is open 24x7 and there is a \$6 fee due as you enter the Coyote Lake Park. The dam parking area is gravel and it looks like it is about the size of RCDO. According to the light meter the site was darker than RCDO, on par with Mendoza but not quite as dark as Hunting Hollow.

When I arrived, Ed Wong and Gary Chock were in the process of setting up; just the three of us for the evening. There were a few fishermen who pulled up but they spent their evening mostly down at the base of the dam and out of sight. Other than a lantern glowing about 1/4 mile further down the dam they really weren't too much of a distraction. Between the three of us there were two refractors, one SCT and of course the binoculars. I wish I would have written this down, maybe next time, but from memory, we started the night with Jupiter, split the Castor double, found the Leos, viewed the awesome Markarian Chain in Virgo, finally Saturn came up and that was a treat. Ed was on a quest to see NGC5139 Omega Centauri, the largest globular cluster in our night sky with his 12" SCT (I think ngc5139 diameter is about as large as the moon). It was scheduled to rise above the horizon around 11pm but would only reach 4 degrees above the horizon; so very challenging. Looking down the length of the Lake, generally to the South, as observing time approached, Omega Centauri was nowhere to be seen. At first we could not figure it out. Guess what, we were getting mooned. The viewing rapidly deteriorated as the moon glow increased so we decided to call it and packed up around 11:45pm. We then drove to check out the boat launch, another potential viewing area, about half way to the Park entry from the dam. The boat ramp parking area was a huge asphalt lot and could accommodate many observers, but since it is open to the public 24x7 there is the potential problem with autos pulling in/out during observing.

I think both of these spots would be good for group observing during the off-season (not summer due to traffic) as an alternative when Mendoza is not available. The good news is we have some options!

Guest Speaker April 12, 2014

Mr. Derek C Breit

Occultations Ain't Voodoo. Why, How, and When to Observe Them

website <http://www.poyntsource.com/New/Regions/SJAA.htm>

Derek Breit's presentation was a real eye opener for those of us who had no prior knowledge on the topic of asteroid occultations; I think that included most of us in the room. But Mr. Breit spoke about a somewhat complicated observation and post-observation process in laymen terms and did a good job of giving the group a feel for how it all works.

During Derek Breit's information filled presentation to the SJAA group, it became apparent that observing asteroid occultations is not for beginners, but rather for experienced amateur astronomers who are willing to coordinate with others in advance on estimated occultation dates for their area, travel to assigned coordinates, take video of the estimated event using time stamped video technology that documents down to the millisecond, record start and stop of the observed occultation and then finally report the data to Mr. Breit for loading into the program he uses to document the events and publish on his website.

Mr. Breit had videos of actual time stamped occultations and graphs which showed how the data corresponded to the actual path across the observing area (similar to the path of a solar eclipse). It made sense that the occultation durations would vary from the periphery of the path (shorter) to the middle of the path (longest) when he laid it out; since the asteroid objects are typically round. The observing paths are quite large, 100 miles if I remember correctly, so you can imagine how spread out the observers need to be to catch the entire width of a path. Check out Mr. Breit's video links - in particular this grazing occultation of star Eta Gem with the Moon is very cool: http://www.poyntsource.com/New/Archive/etaGem_Web.wmv.

From the light variation seen in this video, one can calculate the height and depth of lunar landscape at the poles (see altitude graph which is 3d image re: http://www.poyntsource.com/New/Archive/eta_Gem_Graze.htm). This data is proves important to recent polar surveys and missions. The estimated time of events must be updated continuously by Mr. Breit and his associates and even then I got the impression that one can never be sure whether they will actually observe the estimated occultation; the objects are distant and paths can be off by tens of miles. If interested, Derek Breit's above webpage reference, which he created for the Houge Park location, will provide more detailed information.

Article by Tom Piller

April 2014 Lunar Eclipse Photos

From Michael Packer

Did some of your eclipse shots look turquoise? The source of the turquoise is ozone. Prof. Richard Keen, an atmospheric scientist from the University of Colorado explains: "During a lunar eclipse, most of the light illuminating the Moon passes through the stratosphere, and is reddened by scattering. However, light passing through the upper stratosphere penetrates the ozone layer, which absorbs red light and actually makes the passing light ray bluer!" This can be seen, he says, as a turquoise fringe around the red.

Members, send us one of your lunar eclipse photos (m dot packer at yahoo dot com) and we'll post on the SJAA website.

Through 4/27/2014, Contributors to the lunar eclipse photos on the SJAA website included:

Michael Packer, Mark Striebeck, Ed Wong, Terry Kahl, Marilyn Perry, Paul Summers, Paul Mahany, Chris Angelos, Mark Scrivener, Marion Barker & Paul Colby, Paul Kohlmler and Hemant Agrawal.



Earth's Cousin –Kepler 186f

Using NASA's Kepler Space Telescope, astronomers have discovered the first Earth-size planet orbiting a star in the "habitable zone" -- the range of distance from a star where liquid water might pool on the surface of an orbiting planet. The discovery of Kepler-186f confirms that planets the size of Earth exist in the habitable zone of stars other than our sun.

While planets have previously been found in the habitable zone, they are all at least 40 percent larger in size than Earth and understanding their makeup is challenging. Kepler-186f is more reminiscent of Earth.

"The discovery of Kepler-186f is a significant step toward finding worlds like our planet Earth," said Paul Hertz, NASA's Astrophysics Division director at the agency's headquarters in Washington.

"Future NASA missions, like the Transiting Exoplanet Survey Satellite and the James Webb Space Telescope, will discover the nearest rocky exoplanets and determine their composition and atmospheric conditions, continuing humankind's quest to find truly Earth-like worlds."

Although the size of Kepler-186f is known, its mass and composition are not. Previous research, however, suggests that a planet the size of Kepler-186f is likely to be rocky.

"We know of just one planet where life exists -- Earth. When we search for life outside our solar system we focus on finding planets with characteristics that mimic that of Earth," said Elisa Quintana, research scientist at the SETI Institute at NASA's Ames Research Center in Moffett Field, Calif., and lead author of the paper published today in the journal *Science*. "Finding a habitable zone planet comparable to Earth in size is a major step forward."

Kepler-186f resides in the Kepler-186 system, about 500 light-years from Earth in the constellation Cygnus. The system is also home to four companion planets, which orbit a star half the size and mass of our sun. The star is classified as an M dwarf, or red dwarf, a class of stars that makes up 70 percent of the stars in the Milky Way galaxy. "M dwarfs are the most numerous stars," said Quintana. "The first

signs of other life in the galaxy may well come from planets orbiting an M dwarf."

Kepler-186f orbits its star once every 130-days and receives one-third the energy from its star that Earth gets from the sun, placing it nearer the outer edge of the habitable zone. On the surface of Kepler-186f, the brightness of its star at high noon is only as bright as our sun appears to us about an hour before sunset.

"Being in the habitable zone does not mean we know this planet is habitable. The temperature on the planet is strongly dependent on what kind of atmosphere the planet has," said Thomas Barclay, research scientist at the Bay Area Environmental Research Institute at Ames, and co-author of the paper. "Kepler-186f can be thought of as an Earth-cousin rather than an Earth-twin. It has many properties that resemble Earth."

The four companion planets, Kepler-186b, Kepler-186c, Kepler-186d, and Kepler-186e, whiz around their sun every four, seven, 13, and 22 days, respectively, making them too hot for life as we know it. These four inner planets all measure less than 1.5 times the size of Earth.

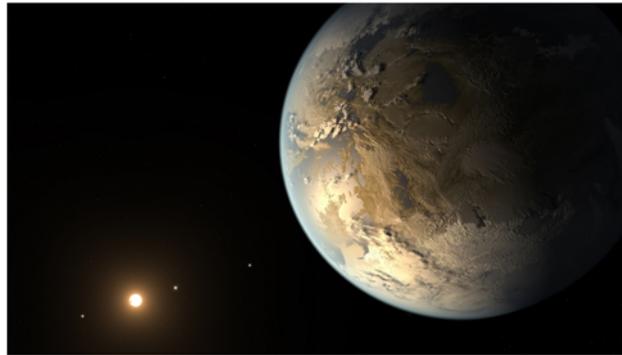
The next steps in the search for distant life include looking for true Earth-twins -- Earth-size planets orbiting within the habitable zone of a sun-like star -- and measuring the their chemical compositions.

The Kepler Space Telescope, which simultaneously and continuously measured the brightness of more than 150,000 stars, is NASA's first mission capable of detecting Earth-size planets around stars like our sun.

Ames is responsible for Kepler's ground system development, mission operations, and science data analysis. NASA's Jet Propulsion Laboratory in Pasadena, Calif., managed Kepler mission development. Ball Aerospace & Technologies Corp. in Boulder, Colo., developed the Kepler flight system and supports mission operations with the Laboratory for Atmospheric and Space Physics at the University of Colorado

in Boulder. The Space Telescope Science Institute in Baltimore archives, hosts and distributes Kepler science data. Kepler is NASA's 10th Discovery Mission and was funded by the agency's Science Mission Directorate.

Credit: nasa.gov



(Image via NASA)

NASA Visualization Explorer Now Available For All iOS Devices

The NASA Visualization Explorer – NASA Viz — beams two new stories every week.



The popular NASA Visualization Explorer app, first launched for the iPad in July 2011, is now available for the iPhone and all Apple iOS devices. The app, which features the data visualization work of NASA's Scientific Visualization Studio, Earth Observatory, Science @NASA and others, publishes two stories per week about the full range of NASA's astrophysics, planetary, heliophysics and Earth science missions. A new universal version of the app is now available for download in the iTunes app store. Since its original launch and through multiple previous updates to the iPad version, NASA Visualization Explorer has recorded about 1 million unique downloads.

The app's design has been modified to optimize it for viewing on the iPhone and the iPod Touch, as long as they are running iOS 5.1 or newer.

The app's archive of 274 stories – covering NASA scientists' studies of the sun, planets, Earth's climate change and deep space – will be immediately available in the new version. The app's editorial team will continue to publish a new story every Tuesday and Thursday.

"I am very excited at the opportunity to turn millions of iPhone and iPod Touch users worldwide into fans of the app," said Helen-Nicole Kostis, the app's project manager. "We worked hard to maintain the quality of interaction within the visual story on smaller screens. With this release we welcome new users to enjoy the experience and to follow the fascinating world of NASA science and research through our stories and data visualization work."

You can download the NASA Visualization Explorer app at: <http://svs.gsfc.nasa.gov/nasaviz/>

Credit: NASA

Cupertino Earth Day & SJAA Solar Observing

by Michael Packer

Sunday, April 6, 2014

Cupertino Earth Day was a big success!

Earth Day is about celebrating and protecting our planet – the coolest planet in the solar system!

Terrific weather, super sunspots, fabulous H-Alpha flares and a great crowd made the Cupertino Earth Day an outreach success for SJAA. We showed views of the sun and talked about astronomy to some 200 – 300 people both large and small. It would not of happened if we did not have a stellar volunteer crew. See below pics which tell the story of the day!

(1) Shots of veteran sun lover Terry Kahl start the picture sequence out. In the middle image you see her front side with the club's 100mm H-Alpha and an 8-inch Schmidt Cassegrain in the back – providing real time views of the sun via a video camera set up. Just to the right of Terry you see her highly portable (and more affordable) H-Alpha scope; the far right image shows a girl looking through the it.

(2) Bill O'Neil is in the foreground with his nicely portable 5-inch scope and Marion Barker is in background showing what folks are seeing and how we amateur astronomers view the sun. (3) Kevin Lahey at his 10-inch dobsonian sunspot killer. A scope this size shows the intricate penumbra webbing of sunspots in stunning detail.

(4) Paul Colby left, is showing his video views of the sun along with Marion Barker. (5) Teruo Utsumi explains to kids prominences (solar flares) at the club's 100m H-Alpha scope.

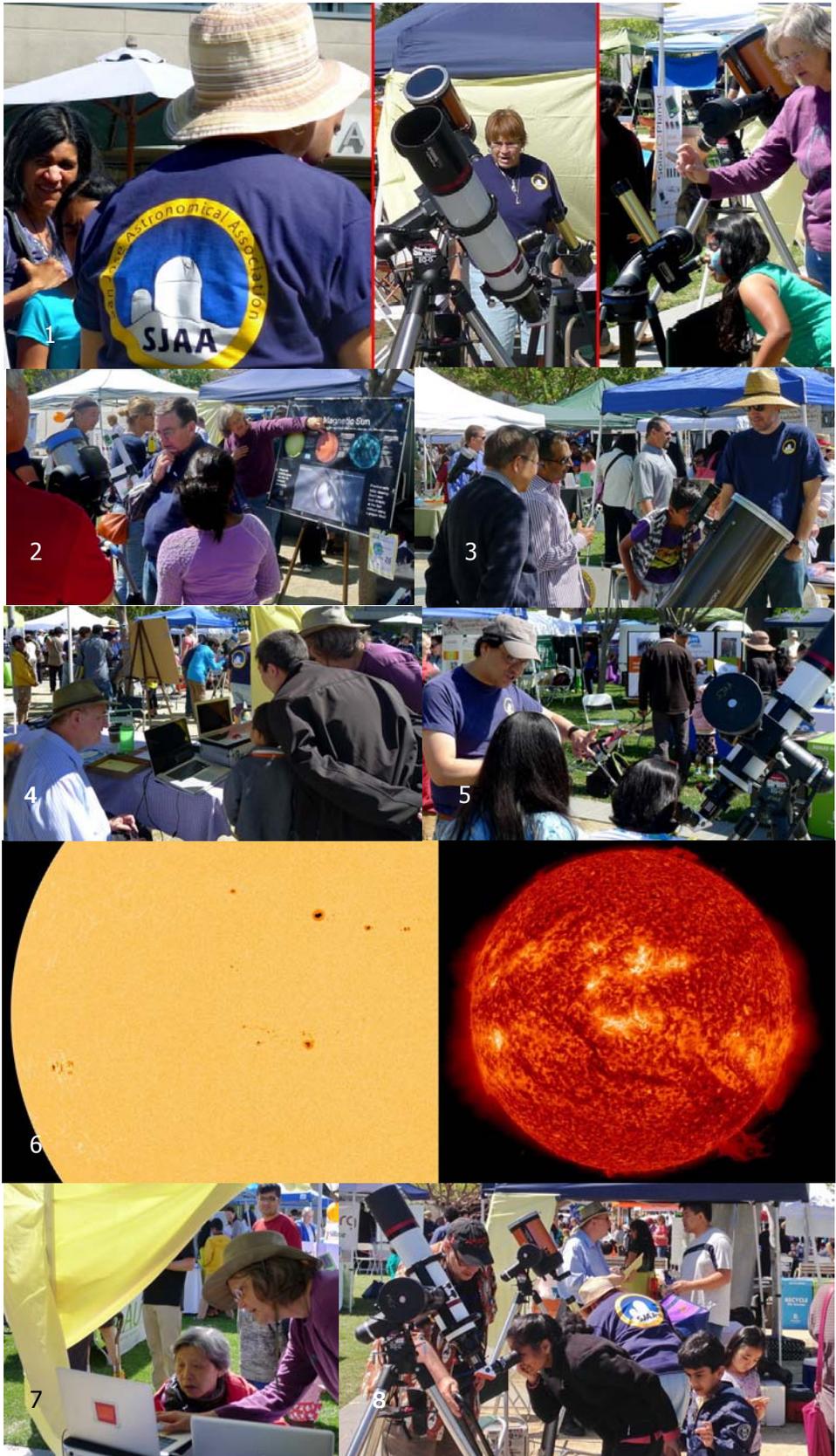
(6) To the right is what the sun looked like April 6th with a standard filter (left) showing photosphere with sunspots and H-Alpha filter (right) showing prominences or h-alpha flares. With the number of sunspots today at 174 (NOAA) we had a very active sun to show the public!

(7) Marion is showing and explaining a live video image of sun – how easy and cool is that? (8) To the right is yours truly Michael Packer – SJAA Solar Program coordinator and lover of everything sun!

Thanks to all the volunteers above for a stellar SJAA outreach day. We handed out over 80 SJAA brochures and over 30 International Dark Sky Association brochures – info on protecting our night skies!

Observe The Sun Safely!

Never look at the Sun without a proper filter!



KID SPOT

Kid Spot Jokes:



1. How do you make a baby sleep on a space ship?
You roc ket!
2. Why did the alien want to leave the party?
Because the atmosphere wasn't right.

Kid Spot Quiz:

1. Olympus Mons is a large volcano on which planet?
2. Is Neptune bigger than Earth?



Image of the Lunar Eclipse
Photo Credit: Michael Packer

Kid Spot Night Sky Challenge: May 2014

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

- ⇒ Jupiter – Evening sky
- ⇒ Venus—Dawn
- ⇒ Mercury—In the evening towards the end of the month
- ⇒ Saturn—is in opposition (1330M miles from Earth)

<http://skyandtelescope.com/observing/ataglance>

Constellations

VIRGO — is one of the constellations of the zodiac.

Its name is Latin for virgin, and its symbol is Unicode ♍. Lying between Leo to the west and Libra to the east, it is the second largest constellation in the sky (after Hydra). It can be easily found through its brightest star, Spica.

The bright Spica makes it easy to locate Virgo, as it can be found by following the curve of the Big Dipper/Plough to Arcturus in Boötes and continuing from there in the same curve ("follow the arc to Arcturus and speed on to Spica").

Due to the effects of precession, the First Point of Libra, (also known as *the autumn equinox point*) lies within the boundaries of Virgo very close to β Virginis. This is one of the two points in the sky where the celestial equator crosses the ecliptic (the other being the First Point of Aries, now in the constellation of Pisces.) This point will pass into the neighboring constellation of Leo around the year 2440.

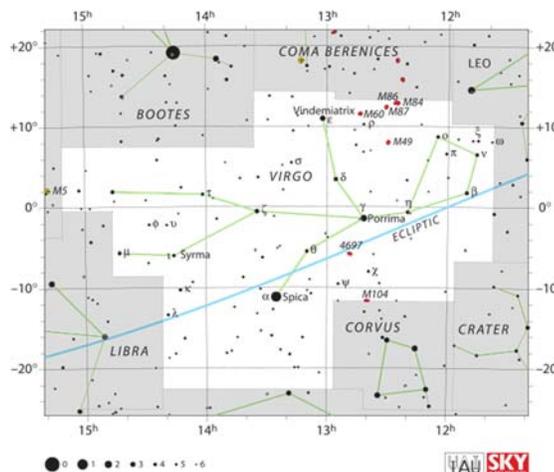
There are 35 verified exoplanets orbiting 29 stars in Virgo, including PSR B1257+12 (three planets), 70 Virginis (one planet), Chi Virginis (one planet), 61 Virginis (three planets), NY Virginis (two planets), and 59 Virginis (one planet).

Virgo possesses several galaxy clusters. The Virgo galaxy cluster is 5° to 12° west of ϵ Vir (Vindemiatrix), this constellation is espe-

cially rich in galaxies. Some examples are Messier 49 (elliptical), Messier 58 (spiral), Messier 59 (elliptical), Messier 60 (elliptical), Messier 61 (spiral), Messier 84 (lenticular), Messier 86 (lenticular), Messier 87 (elliptical and a famous radio source), Messier 89 (elliptical) and Messier 90 (spiral). A noted galaxy that is not part of the cluster is the Sombrero Galaxy (M104), an unusual spiral galaxy. It is located about 10° due west of Spica. M87 is the largest galaxy in the Virgo cluster, and is at a distance of 60 Mly from Earth.

It is a major radio source, partially due to its jet of electrons being flung out of the galaxy by its central supermassive black hole.

The Greeks and Romans associated Virgo with their goddess of wheat/agriculture, Demeter-Ceres who is the mother of Persephone-Proserpina. Alternatively, she was sometimes identified as the virgin goddess *Iustitia* or Astraea, holding the scales of justice in her hand as the constellation Libra. In the Middle Ages, Virgo was sometimes associated with the Blessed Virgin Mary.



Credit: IAU / Sky & Telescope

Source: Wikipedia

Kid Spot Quiz Answers:

- 1) Mars
- 2) Yes

Club Updates

Programs

School Events

From Jim Van Nuland

A cumulative list of completed school events from 7/2013-4/2014 is listed below. For more information on SJAA school events please visit the webpage; Programs; School Star Parties or contact Jim Van Nuland.

- ◇ Total Scheduled: 58
 - ◇ Good sky: 37
 - ◇ Partly Cloudy, successful: 2
 - ◇ Cloudy, failed: 2
 - ◇ Canceled due to weather: 17

Event scheduling as of 4/10/2014:

- ◇ In progress: 4
 - ◇ Firm: 1
 - ◇ Approvals in progress: 3

Advanced Loaner Telescopes

From Dave Ittner

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 on the web page under 'Programs'. Please note that certain items have restrictions or special conditions that must be met.

Fix-It

From Ed Wong

If you plan on bringing something to the FixIt session inside Building 1, though it's not required, we ask that you check out the FixIt page on the SJAA website and fill out the form so we know what to expect. Here's where to find it all:
<http://www.sjaa.net/fixit>

Astro Imaging Special Interest Group (SIG)

The Astro Imaging Special Interest Group (SIG) was spearheaded by Harsh Kaushikkar and 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 other month at Hogue Park to discuss topics about imaging, as well as in the field, usually at Rancho Cañada del Oro. 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.

From the Board of Directors

General Notices

SJAA is signed up for Astronomy Day and SJ MLK Public Library Saturday May 10 2014 from 11am - 3pm.

The Club will celebrate Astronomy Day on Friday, May 9th. The event will coincide with the In-Town-Star-Party schedule for Bear Creek Stables.

The annual SJAA Yosemite star party will be held on July 25 and 26, 2014, at Glacier Point in Yosemite National Park. See the SJAA webpage for more information.

The Golden State Star Party (GSSP) will take place June 25-29, 2014. See Michael Packer or the SJAA BLOG for more details.

There is currently one (1) board seat open that needs to be filled. See Lee Hoglan or any board member if you are interested.

Announcements

Dr. Sandra Faber speaks at Hogue Park Saturday, May 10th @ 8pm; the topic: The Research and Vision of Lick Observatory.

See SJAA Blog and Ephemeris articles for Lick Observatory donations—SJAA matching funds at the 5/10 general meeting.

Board Meeting Excerpts April 12, 2014

In attendance

Lee Hoglan, Ed Wong, Greg Claytor, Dave Ittner, Teruo Utsumi, Rich Neuschaefer, Michael Packer

Lick Observatory Matching Funds

The Board approved matching funds for Lick Observatory donations given at May General Meeting, not to exceed \$1,500.

Preschool Light Shields Hogue Park

Greg Claytor reported that design of a prototype light shroud is in development and will provide a more detailed update as the project progresses.

Bear Creek Stables

The date for the In-Town-Star-Party alternate viewing site, Bear Creek Stables (Los Gatos), was approved and rescheduled for Friday, May 2nd due to the April rainout.

Library

Sukhada Palav, for the Club library, walked the Board through the Library process.

Lunar Eclipse April 14, 2014

From Teruo Utsumi

Well, it turned into quite a night. I think attendance was 200-300. There was some cloud cover the entire time, but my sense was that it turned into quite a festive atmosphere. A large part of the reason for the turnout was that there were dozens of children. Someone told me the school district had their spring break this week. Setting up in the basketball courts, regardless of sprinklers, was the right place, given both the number of people we had as well as the number of children. The playground is right next to the basketball courts, so that worked out well for parents. The bulk of the people who came found out via the SJ Mercury article. For sign-ins, we had 59 adults and 11 children. People were appreciative of the tea/hot chocolate. The kids did clean us out of the hot chocolate mix. One gentleman personally thanked me and left \$2. The crowd thinned out quickly after around 12:30. Few were left by 1:00pm. A couple stragglers remained until 2:20am.

Dark Sky Events

May—June 2014

Friday, May 2

In-Town Star party: 9-11pm
Bear Creek Stables

Saturday, May 17

Starry Nights Star Party: 9-11pm
Rancho Canada del Oro (RCDO)

Saturday, May 31

Henry Coe State Park

Saturday, June 21

Starry Nights Star Party: 9:30 -11:30pm
Rancho Canada del Oro (RCDO)

Wed, June 25— Sun, June 29

Golden State Star Party

Saturday, June 28

Henry Coe State Park

SJAA Ephemeris newsletter of the San Jose Astronomical Association, is published monthly

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

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San Jose, CA 95159-8243
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