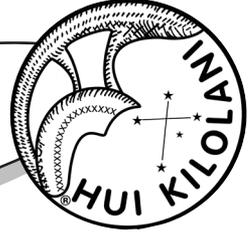


The Astronews



Volume 60, Issue 9

September 2012

www.hawastsoc.org

Guest Report

Rankin Pang

KEASA - Kauai Educational Association for Science and Astronomy

The golden afternoon and brilliant sunset promised a clear night skies over Kaumakani, HI, the site of KEASA's monthly public star watch. For the past years KEASA, (Kauai Educational Association for Science and Astronomy) has hosted public star watches at this site, which is slightly north of the main highway near Kaumakani School on the leeward side of beautiful Kauai. The site boasts of dark skies, easy parking and safe environs for sky afficianadoes.

KEASA members who attend the monthly starwatches are the "who's who" of the Garden Isle science community. Pastor Jim, KEASA President, attends in the company of the excellent young Kauai school grad, Roan. They both man mid aperature Dobsonian instruments, also used by Chiefess Kamakahale Astro club members.

The enthusiastic, ebullient Roz gives her showcase Into to Hawaiian Skies, and visual astronomy, all the while answering queries, directing guests to telescopes, managing the event, and manning an astronomic binocular station... wow...

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Upcoming Events:

☆The next meeting is 7:30PM on **Tues., Sept 4** at the Bishop Museum Planetarium.

☆Bishop Museum's next planetarium shows with **Barry Peckham** are Friday, **Sept 7 & 21** at 8:00 p.m.
www.bishopmuseum.org/calendar

☆The next Board Meeting is Sun., **Sept 2** at 3:30 p.m. at the POST building at UH.

The Hawaiian Astronomical Society is now on

facebook



Kauai Club Report

What's wrong with this picture? A report from the Kauai Star Party last month was courtesy of KEASA member and Kauai resident Rankin Pang. I enlisted this report from him for three reasons: 1) HAS and KEASA has had a friendly partnership in the past and I thought it would be nice for us Oahu folks to see what other clubs are doing once in awhile; 2) Hopefully this will open the door to more "exchanges" and encourage astro-tourism between our two groups; 3) I also could use more articles from our own club!

This issue is a good example that you don't have to submit articles that are strictly informational or technical. This is your club's newsletter and you can submit anything you feel like expressing, within reason and content of course. I appreciate the club officers and a few members consistently contributing articles or stories but it would be nice to have more variety and participation as well.

I've also appealed for ideas on what kinds of things you would like to see more of in this newsletter, although as editor I reserve the right to pick and choose what might be reasonable. Hopefully this gives inspiration to those that might want to share their impressions of the night sky?

Oh and I learned a new phrase--thanks to another friend of Hawaiian ancestry who taught me how to say "clear skies" in Hawaiian:

Māla'e no...

Editor



Hawaiian Astronomical Society
P.O. Box 17671
Honolulu, HI 9681-0671

President

Chris Peterson

956-3131

chrisp@higp.hawaii.edu

Vice-President

Leslie Galloway

636-1024

gallowayL001@hawaii.rr.com

Secretary

Gretchen

282-1892

gwest002@hawaii.rr.com

Treasurer

Jim MacDonald

371-8759

jim.macd@hawaiiintel.net

The **Astronews** Editor

Carolyn Kaichi

551-1030

c.kaichi2001@gmail.com

Board Members at-Large

Sue Girard

341-6114

socrux@hawaiiintel.net

April Lew

734-2705

stardustlounge@hotmail.com

HAS Webmasters

Peter Besenbruch

peter@besenbruch.info

Harry Zisko

harryz@pobox.com

School Star Party Coordinator

John Gallagher

gallaghej002@hawaii.rr.com

The **Astronews** is a monthly newsletter of the Hawaiian Astronomical Society. Some of the contents may be copyrighted. We request that authors and artists be given credit for their work. Contributions are welcome. Send them to the Editor via email. The deadline is the 16th of each month. We are not responsible for unsolicited artwork.

Change is in the air ... or sky ... or simulated sky ... once again. As those of you who have attended a meeting in the last few months know, Bishop Museum's planetarium has recently acquired new digital projectors. We've been treated to some spectacular examples of the capabilities of the new system as Joanne has continued to learn new tricks between meetings.

There are more changes to come, however. The planetarium is going to be renovated beginning in September. It appears at the moment that we will be able to have our September meeting there. Soon after that, the interior dome will be replaced and new chairs will be installed. During that period, we will meet elsewhere at the Museum, perhaps in Atherton Halau where we met for a few years when the planetarium was in use during our meetings. If we don't know exactly where we'll meet in time for an announcement here in the Astronews, just show up at the Museum and follow the (small) crowd or ask a security guard.

Another possibility for later in the year is to meet again at the Imaginarium at Windward Community College. They have let us know that we would be welcome to schedule another visit. This would probably be in October, November, or December. If you have a preference for when we go, please let me or another board member know.

We will probably be back in the newly renovated planetarium by January, although there's always the possibility of delays with construction. Bishop Museum has been our home for many years. Club members have seen many changes during that time. What hasn't changed is the welcome we feel there and the willingness of our members to help out the Museum when asked. We assisted with two events recently. The transit of Venus was a rare opportunity to use our telescopes in the daytime. Curiosity's landing on Mars brought a good crowd as well. We look forward to many more years of partnership.

Chris 

Star Party Report

by Sue Girard

Public Star Party Report - Sat Aug. 18th, 2012

The Public Star Party started on a rather 'iffy' tone, when a rain squall almost quashed it, but that soon parted and the sky cleared wonderfully. We had a moderate number of visitors in addition to our members who were not frightened off by the initial rain showers.

As the sky darkened, Saturn and Mars shown brightly in the western sky. Saturn was remarkably detailed in spite of being so low in the sky. The Cassini division was apparent, and five of her Moons were visible. Mars, of course, didn't display much detail, but still delighted the visitors. There was a lot of moisture in the atmosphere resulting in poor galaxy observation.

However, the Milky Way became very bright - in fact, almost the brightest I've seen at Dillingham in some time. The Great Rift was very apparent and much detail could be observed. Dark nebulae near Sagittarius were easily seen - they fairly 'popped' right out at you! The Parrot's Head nebula was an easy target.

It wasn't a bad night for splitting double stars either. We gave the visitors the tour of our favorite open and globular clusters, double stars, planetary nebulae until most left about 8:30pm.

We stayed until 10:45pm, when it started to cloud up and a few rain drops started to fall and we made our way home.

*Clear Skies,
Sue* 

A Brand New Age: Queue Observing at Mt. Paranal

By Dr. Marc J. Kuchner

First a caravan of white observatory cars arrives, winding up the narrow road to the 2600-m- (~8500-foot-) high summit. Then the shutters around the domes open, and rays from the setting sun alight on colossal mirrors and metal struts. It's the beginning of another busy night at Mt. Paranal, Chile, where I am learning about new, more efficient ways of managing a modern observatory.

I stepped into the observatory's control room to soak up some of the new, unfamiliar culture. Here, under florescent lights and drop ceilings are banks of computer screens, one bank to control each of the four big telescopes on the mountaintop and a few others too. At each bank sits two people, a telescope operator and an astronomer.

The layout of this workspace was not unfamiliar to me. But the way these Mt. Paranal astronomers work certainly was. When I was cutting my teeth at Mt. Palomar observatory in California, I would only go to the telescope to take my own data. In stark contrast, everyone observing at Mt Paranal tonight is taking data for someone else.

The Mt. Paranal astronomers each spend 105 nights a year here on the mountain performing various duties, including taking data for other astronomers. The latter, they

(Continued on page 9)



Mt. Paranal Observatory, Chile. Science is a universal language in every country on Earth. But the procedures for accomplishing research can vary widely. This astronomer discovered a new—and possibly better—way to study the skies while visiting a Southern Hemisphere observatory. Credit: NASA

Hawaii was well placed for this year’s maximum of the Perseid meteor shower. It’s unfortunate that the weather didn’t cooperate. The weather wasn’t horrible, but it could have been better. I understand that folks at the Dillingham star party were treated to some nice meteors as they took time to look up from the eyepiece; this was early in the evening. A group of us observing from central Oahu were treated to several nice meteors through the holes in the clouds. The brightest meteor observed was brighter than Venus as it illuminated the surrounding clouds. This was very encouraging, but as the night marched on toward the radiant rise around midnight, the weather degraded to occasional sprinkles. No more meteors were seen and we finally packed up sometime after 2am.

Looking forward to September’s showers we have a couple of candidates. Although the α -Aurigids (AUR) peak on the last day of August, I snuck it into September Meteor Log so we could look out for meteors that may occur on the waning shoulder. The September ϵ -Perseids (SPE) peak on the 9th, which is just a day after the last quarter moon. This small shower is reported to have had an unexpected outburst of swift, bright meteors on 2008 September 9, but chances are slim that we would have a reoccurrence. It would be good to watch, just in case.

<i>Last Quarter</i> Sept 8	<i>New Moon</i> Sept 16	<i>First Quarter</i> Sept 22	<i>Full Moon</i> Sept 30					
Shower	Activity	Max Date	λ 2000	Radiant α	δ	V_{∞} km/s	r	ZHR
α -Aurigids (AUR)	8/28 - 9/5	Aug 31	158.6°	91°	+39°	66	2.5	6
Sept ϵ -Perseids (SPE)	9/5 - 9/21	Sept 9	166.7°	48°	+40°	64	3.0	5

Did you see any Perseids, let us know...

Tom Giguere, 808-782-1408, Thomas.giguere@yahoo.com
Mike Morrow, PO Box 6692, Ocean View, HI 96737

New Stock!



HAS T-Shirts \$15!

(see Jim MacDonald)

- Dark Blue (s - 2XL)
- Light Blue (s - L only)

Planets Close To the Moon

Times are Hawaii Standard Time

- Sep 2, 12h, M 4.7° NNW of Uranus
(152° from sun in morning sky)
- Sep 8, 00h, M 0.70° E of Jupiter
(91° from sun in morning sky)
- Sep 12, 06h, M 3.6° S of Venus
(43° from sun in morning sky)
- Sep 18, 02h, M 4.8° SSW of Saturn
(32° from sun in evening sky)
- Sep 19, 12h, M 0.83° ESE of Mars
(51° from sun in evening sky)
- Sep 26, 20h, M 5.8° NNW of Neptune
(145° from sun in evening sky)
- Sep 29, 16h, M 4.7° NNW of Uranus
(176° from sun in midnight sky)

Other Events of Interest

Times are Hawaii Standard Time

- Sep 8, 21h. Moon 1.0° NW of 1 Ceres
(81° from sun in morning sky)
- Sep 10. 03h, Mercury at superior conj.
with sun (Passes into the evening sky)
- Sep 15, 16:09h, Moon new
- Sep 22, 04:47h, Autumn equinox
- Sep 24. 12h, 2 Pallas at Opposition
- Sep 28. 21h, Uranus at Opposition
- Sep 29, 17:17h, Moon full

Mercury is closer that 15° from the sun when near the moon in September

 Mercury Mercury is too close the sun for easy viewing all month. It will have an evening apparition early in October.	 Venus Dominates the morning sky, rising about 3 hours before the sun and shining at about magnitude -4.2	 Mars Mars is now too close to the western horizon after sunset to be seen crisply.
 Jupiter Rises in the late evening and shines brightly in Taurus for the rest of the night.	 Saturn Saturn, near Mars, is also too low in the west after sunset to see crisply.	 Uranus Uranus reaches opposition late in the month and can be viewed in the midnight hours near the zenith.
 Neptune Reached opposition in August, so this is one of the best months this year to view the most distant planet in the solar system.	 Dwarf Planet Pluto Can be viewed in the southwest near M25 in the early evening.	 Asteroid 2 Pallas Reaches opposition on Sep 24 and is above the horizon all night in Pisces at about mag. +8.3.

President Chris Peterson called the August 7, 2012 meeting of the Hawaiian Astronomical Society to order at 7:33p.m. The meeting was held at the Planetarium on the grounds of the Bishop Museum. There were twenty-six members in attendance.

Mars Mission/Curiosity Landing: Much of this month's meeting was spent discussing the Mars Science Laboratory mission to Mars. NASA successfully landed the latest Mars rover, Curiosity, in Gale Crater on August 5, 2012. The Robotic space probe mission that was launched November 26, 2011 has been tasked to investigate past climatic conditions, study the planet's geology and collect data for a manned mission to Mars. The rover will use a variety of scientific instruments. H.A.S. President reviewed information on previous Mars mission rovers Spirit and Opportunity and how the previous rovers differed from Curiosity. For example, Curiosity has a nuclear power source that runs continually and a battery to collect excess power for later use to meet higher power demands. The new rover will not look for life on Mars but rather for signs of where life may have existed. It will collect data for relay to Earth for analysis.

General Information: Chris Peterson reminded the assembled members that Bishop Museum is in the process of upgrading the Planetarium, where we have been having our monthly meetings. As a result, September, October, November and December meetings will most probably be moved to the Atherton Halau when renovations preclude us from using the Planetarium. We are hoping that this will be only a short time. Joanne Bogan has assured us that the new and improved Planetarium will be a more engaging. H.A.S. members should look for posting in the ASTRONEWS about the location of upcoming meetings. The Windward Community College "Imaginarium" has offered to host us at their facility. We will be firming up the offer and post notifications in upcoming issues of the ASTRONEWS. We received late word that work on the planetarium will begin on September 10, which means that our meeting is scheduled to be held in the planetarium.

Star Charts: The University of Hawaii's Institute for Astronomy (IfA) is issuing monthly "Hawaii" star charts. The IfA star charts are more involved charts than others. To access these star charts, go to <http://www.ifa.hawaii.edu/publications/starcharts/>.

Astronomical League: The Astronomical League of the Pacific plaque for **Travis Le** was received, however as Travis was traveling with his parents, he was unable to attend this month's H.A.S. meeting. Chris Peterson and other Board members will have the plaque with them at upcoming star parties in August and present it to him should he attend.

Communications: H.A.S. has received an e-mail invitation to participate organizing a "Moon Festival" tentatively set for October 2013, at Sea Life Park. The organizer who introduced herself as only "Sonya" indicated she would like to see the event encompass both nature and science. An organizational meeting will take place Sunday, August 12, 2012.

T-Shirts: **Jim MacDonald** reported to the assembled members that new "winter" dark blue H.A.S. tee shirts available in all sizes. As for the 'summer' light blue shirts there is a limited supply, but not in all sizes. Jim also indicated that hopefully next month, he would have illustrations of polo shirts that will be available for order with the H.A.S. logo. Orders will be taken with pre-payments only!

Calendar Time: Jim MacDonald also reports that Astronomy Magazine has offered their 2013 calendars "Deep Space Mysteries," as well as Discovery Magazine 2013 calendars "Wonders of Science" for a discounted \$6.50 each. Pre-paid orders will

(Continued on page 11)

Hawaiian Astronomical Society
Event Calendar

List View		Past Events		< September 2012 >		Upcoming Events		Add/Log Event	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday			
26	27	28	29	30	31	1			
							Sunset: 6:49 PM		
2	Labor Day	3	7:30 PM Club Meeting	4	5	6	7	6:15 PM Club Star Party (D)	8
							Sunset: 6:42 PM		
9	10	11	12	13	14	15	6:15 PM Public Star Party(D)		
							Sunset: 6:36 PM		
16	17	18	19	20	7:00 PM Milliani 'Ike Elem	21	6:00 PM Public SP(K) & InOMN 2012	6:00 PM Public SP(G) & InOMN 12	22
							Sunset: 6:29 PM		
23	24	25	26	27	28	29			
							Sunset: 6:22 PM		
30	1	2	3	4	5	6			
									

Don't forget!

FOR SALE



Deep Space and Science Calendars

From Kalmbach Publishing (*Astronomy & Discover Magazine*)

Great gift idea for Christmas!

See **Jim MacDonald** or send check made out to HAS to address on back cover of this issue.

\$6.50/per calendar

Offer ends Sept. 30

(Space Place continued from page 4)

call “executing the queue.” Headquarters in Germany decides what parts of the sky will have priority on any given night (the queue). Then the Mt. Paranal astronomers march up the mountain and carry out this program, choosing calibrators, filling the log books, and adapting to changing conditions. They send the data back to headquarters, and from there it makes its way out to the wider astronomical community for study.

This new way of working allows the Mt. Paranal astronomers to specialize in just one or two telescope instruments each. Surely this plan is more efficient than the old-fashioned way, where each of us had to learn every instrument we used from scratch—sifting through manuals at 3:00 AM when the filter wheel got stuck or the cryogen ran out, watching precious observing time tick away. Here at Mt. Paranal, much of the work is done in a big room full of people, not off by yourself, reducing some dangers of the process. Also, queue observing cuts down on plane travel, an important step for cutting carbon emissions.

It’s a brand new age, I thought as I watched the giant domes spin in the silent, cold Chilean night. And maybe with queue observing, some of the romance is gone. Still, my colleagues and I couldn’t help saying as we stared out across the moonlit mountains: I can’t believe how lucky we are to be here.

Dr. Marc J. Kuchner is an astrophysicist at the Exoplanets and Stellar Astrophysics Laboratory at NASA’s Goddard Space Flight Center. NASA’s Astrophysics Division works on big questions about the origin and evolution of the universe, galaxies, and planetary systems. Explore more at <http://www.science.nasa.gov/astrophysics/>.

Kids can explore these topics at <http://spaceplace.nasa.gov/space> ☆

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(Guest Report continued from page 1)

The knowledgeable Dr. James of Kauai Community College, lends his many years of star gazing expertise. Although absent last month due to work constraints, KEASA VP, Bruce and Barking Sands engineer, Dave, rewards visitors with their viewing acuity through their respective instruments. Drs. Mock and Taylor, Marshall and Steve have all attended recently, rounding out the roster. All in all, the members of KEASA provide a friendly, informative and enthusiastic experience, which easily can add to zip-lining, kayaking and atv-ing as a unique Kauai Experience.

Kaumakani Field hosted the starwatch (on August 18), however, the skies did not deliver the noted clarity and transparency we expected. Cloudy conditions were complicated by the onset of brushfires in Kekaha and Kokee, which may have fouled the western sphere. Most scopes were not able to hold magnification to enable detailed views of Mars and Saturn. Similarly, the normal magnificence of the western constellations, particularly Sagittarius and Scorpius, seemed muddled to the eyes.

The instruments typically range from large aperture 20” -12 “ dobs, to 4-2.5” refractors, to 10”-7” catadioptric, sub-4” robotically controlled scopes, to tripod mounted binocs.

Fellow skywatchers are urged to follow KEASA on the web @ www.keasa.org, or on facebook. search for KEASA.

Please navigate to the monthly starwatch link...Kauai county requires that reservations for the Kaumakani site, can be reserved no more in advance that 3 months, so please check back frequently. ☆

Treasurer's Report

by Jim MacDonald

HAS Financial Report for the month ending as of Aug. 15, 2012

Initial Balance:	\$4,498.44
<i>Receipts:</i>	
T-Shirt Sales	75.00
Donations	10.00
Dues Received	90.00
Calendars	78.00
Total Income:	\$253.00
<i>Expenses:</i>	
Astronews	193.17
Excise Tax	1.58
Magazine Subscription	102.00
Membership Card Blanks	24.97
Postage	2.70
T-Shirt Supply	281.15
Total Expenses:	\$605.57
Final Balance	\$4,145.87

The club gained one new member this month. She is *Erin Furuichi* and thanks to Erin for her donation. Our thanks also to all those who remembered to renew their membership.

Come join us for the remaining views of the Summer skies.

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<<Upcoming Star Parties>>

- CLUB Party-Dillingham Sept 8** (Galloway)
- Public Party-Dillingham Sept 15** (G. West)
- Kahala/Ewa Party Sept 22**

.....

☆ ☆ Upcoming School Star Parties ☆ ☆

Back to School! Schedule for the rest of 2012

Fri.	8/24	Pauoa Elementary (Honolulu)
Fri.	9/21	Mililani Ike Elementary (Mililani Mauka)
Fri.	10/19	Niu Valley Middle School (East Honolulu)

(Minutes continued from page 9)

need to be completed no later than the October meeting. See our Ads in the Astronews.

Star Party Report: *John Gallagher* reports that H.A.S. has one school star party at Pauoa Elementary School on August 24, 2012. He passed a sign-up sheet for members interested in helping out at the event. A teleconference regarding the inception of the universe will take place September 18th. Should you be interested in listening in, contact John Gallagher. John did remind members that star maps for the month of August were available after the meeting.

Perseid Meteor Shower: The August 11th Dillingham Star Party will be one desirable place to view this month's Perseid Meteor Shower. Chris Peterson reported that *Tom Giguere* has also set a place near Haleiwa to view the evening's meteor show. Interested members at the meeting were given directions to the spot.

The New Planetarium: *Joanne Bogan* reminded the members that in the next few months that the Planetarium will be renovated. Joanne replayed NASA's "7 Minutes of Terror" video (The decent of Curiosity when it was out of radio contact with Earth.) and reviewed the available materials. Joanne allowed us to experience various special parts of the new programs available to her using the Planetarium hardware. Nifty stuff.

As there was no further business, the meeting was adjourned at 9:41 p.m. Members enjoyed refreshments after the meeting.

Respectfully Submitted,

Gretchen West
Secretary



Celestial Moments While Eating Shabu Shabu by Mel Levin



*It's been a long time since I wrote a poem
I could tell you why but it would only depress you.
So instead I decided to confess and impress you.
You see, Paul, Clare and I were eating Shabu Shabu
And though not great, it was definitely passable.
While staring at this pile of goodies slowly shimmering in their shining pan--
tended, alas, by short skirted girls--not kimono clad mama-san or geisha-like
pale faced youngsters, my mind wandered to the heavens--
Perhaps due to the heavenly company, but more likely transfixed by the
twinkling of the TOFU--
It's white face accentuated by the darkening meat, mushrooms, onions and
sauce covering everything in a smokey brown stew.*

*But the tofu managed to maintain it's snowy glare--there were two pieces side
by side--
I smiled as I thought of the brilliant Perseus double cluster.
I ate the first cluster slowly to taste the richness of the Universe
But I swallowed the second one in haste, fearful of some celestial retribution--
There was none except for the burning feeling of very hot tofu on my palate.*

*And so I wonder just as we humans are slowly but inexorably eating away our
planet--once gone do we set out for far flung places--like Perseus??*

Hawaiian Astronomical Society
P.O. Box 17671
Honolulu, HI 96817-0671

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HAS club member *Travis Le* is congratulated by *Chris Peterson* for his 2012 National Young Astronomer Awards from the Astronomical League. Travis received a second place award for his project in determining hot spots through the correlation of CMEs and solar flares to detect possible hot spots for the appearance of active regions on the sun and to arrive at a list of dates for the next few years when dangerous coronal mass ejections (CME) could possibly have an impact on the earth.

Image courtesy: Jim MacDonald