

The Astronews



Volume 57, Issue 5

May 2009

www.hawastsoc.org

President's Message

by Chris Peterson

Long-time members of the Hawaiian Astronomical Society will recall that we used to meet in the Bishop Museum planetarium. About eight years ago, the Museum began presenting planetarium shows nightly to Japanese tourists. Because the planetarium was in use during our monthly meetings, we were provided space in the Atherton Halau.

The current worldwide economic downturn is proving to be a mixed blessing for our club. Because tourism is down, we are going to be allowed to use the planetarium for our meetings again beginning with our May 5th meeting. However, Bishop Museum is going to be closed on Tuesdays, so we will have to choose a different night after our May meeting. I want to choose a night that will work best for the largest number of our members. I'll get input from those who attend May's meeting, and we'll make at least a temporary choice for June. I think we could change to another night later if our first choice doesn't seem the best. I'll provide an opportunity for everyone to express their preference, but details will have to wait

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Upcoming Star Parties

Kahala/Waikele Party May 2 & 30
Club Party-Dillingham May 16
Public Party- Dillingham May 23

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Upcoming Events:

☆ The next meeting is at 7:30 p.m. on **Tuesday, May 5** at the Bishop Museum.

☆ Bishop Museum's next planetarium show with **Barry Peckham** is Friday, **May 1 & 15** at 7:00 p.m.

[www.bishopmuseum.org/
calendar](http://www.bishopmuseum.org/calendar)

☆ The next Board Meeting is Sunday, **May 3** at 3:30 p.m. at the POST building at UH.

Closer Look...



CONGRATULATIONS!

We are proud to report that HAS club member and Punahou freshman **Travis Le** took 3rd place Overall in the 52nd Hawaii State Science and Engineering Fair on April 8 with his project, "WASP 2-b or Not just 2-b". This project used photometry to determine whether the star WASP 2 had more than one extra-solar planet.

This is Travis' first attempt at science fair competition and he first had to compete on the district level to enter the state competition. Surprisingly, only two students from Punahou even entered a science project this year. All senior research projects are judged by professional scientists in the community in order to win at the top levels.

The Hawaii State Science and Engineering Fair is sponsored by the Hawaii Academy of Science, a membership-based organization with a mission to promote science education in Hawaii. see <http://www.hawaii.edu/acadsci/index.html> for more information. Mahalo to club members **Forrest Luke** and **Gretchen West** for their invaluable volunteer work; **Paul Lawler**, **Jim MacDonald** and **Chris Peterson** for judging. The Academy needs volunteers of all qualifications next year--please consider supporting this great cause.

Travis will be traveling with the rest of the Hawaii winners of the fair to the Intel International Science and Engineering Fair in Reno, Nevada in May. Please extend your congratulations to Travis for a job well done and wish him luck in the International competition!

☆ For more on Travis, see pg. 9

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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.

President Chris Peterson called the February 3, 2009 meeting of the Hawaiian Astronomical Society to order at 7:44 p.m. The meeting was held at the Atherton Halau on the grounds of the Bishop Museum. There were twenty-eight members and three visitors in attendance.

Hawaii Space Lecture Series: Hawaii Space Lecture Series: President Chris Peterson reports that on Tuesday, January 24th, Nick Moskovitz, a graduate student at the Institute for Astronomy of the University of Hawaii, Manoa, will speak on basaltic asteroids in our solar system. Mr. Moskovitz will talk about new information about the geology and molecular makeup of the rocky asteroids. This particular lecture for the Series is scheduled to take place at 7:30 pm, in the room 544, on the fifth floor of the Pacific Ocean Science and Technology Building, at the University of Hawaii at Manoa. For further information you can contact NASA PRPDC at 808-056-3132 or on the Web go to <http://www.higp.hawaii.edu/prpdc> <<http://www.higp.hawaii.edu/prpdc>>

Visitors: We had three visitors at the meeting this month. Joe Witherspoon, Outreach Director of the Tacoma Astronomical Society was in attendance.

Reminders: 2009 is the International Year of Astronomy and clubs and interested groups around the world are geared up. February activities include moon activities and discussions of the solar system. Getting newcomers started in astronomy is a focus. Teaching the use of Finder charts and star charts starts out the year's activities. The Hawaiian Astronomical Society will participate in the National Observe the Moon night later in the year, August 1st. This will be an active year and we hope many of our members come out and help celebrate with us on the North Shore of Oahu at our monthly Star Parties at Dillingham Airfield near Mokuleia. Should members not wish to venture so far, we offer monthly suburban star viewing usually during the first quarter moon phase, at Kahala Community Park and Waikale Regional Park.

FYI : Author Walker Vanning has contacted HAS regarding his new book, "Pluto- Probaeudetic Paradigms." Contact President Chris Peterson if you are interested in delving into the realms of the dwarf planet Pluto.

Permit Renewals: HAS is in the process of obtaining this year's permit renewals for the use of Kahala Community Park for the year 2009. We are awaiting the permit, by mail.

School Star Party Report: Forrest Luke reported that there will be a star party at Iolani School Science Night on February 27th, and requested sign-ups for astronomers to help out. Sign-ups for the upcoming star parties for Punahou School were also sent around. Coming in March we have star parties slated for Niu Valley Middle School.

Night Sky Network: John Gallagher spoke briefly about updating the H.A.S. listing on the Night Sky Network webpage. A monthly teleconference took place on January 15 and another will take place on the afternoon of February 19th. The topic for the February teleconference will cover light pollution and will feature Dr. Connie Walker. Anyone interested in these should contact At-Large member John Gallagher

Science Cafe: Carolyn Kaichi announced another Science Café, Tuesday, February 24th. This month's talk will be presented by Dr. John Learned, Dept. of Physics, UH Manoa. The topic is titled: ET, So Where Is He? Time: 6-8 PM.

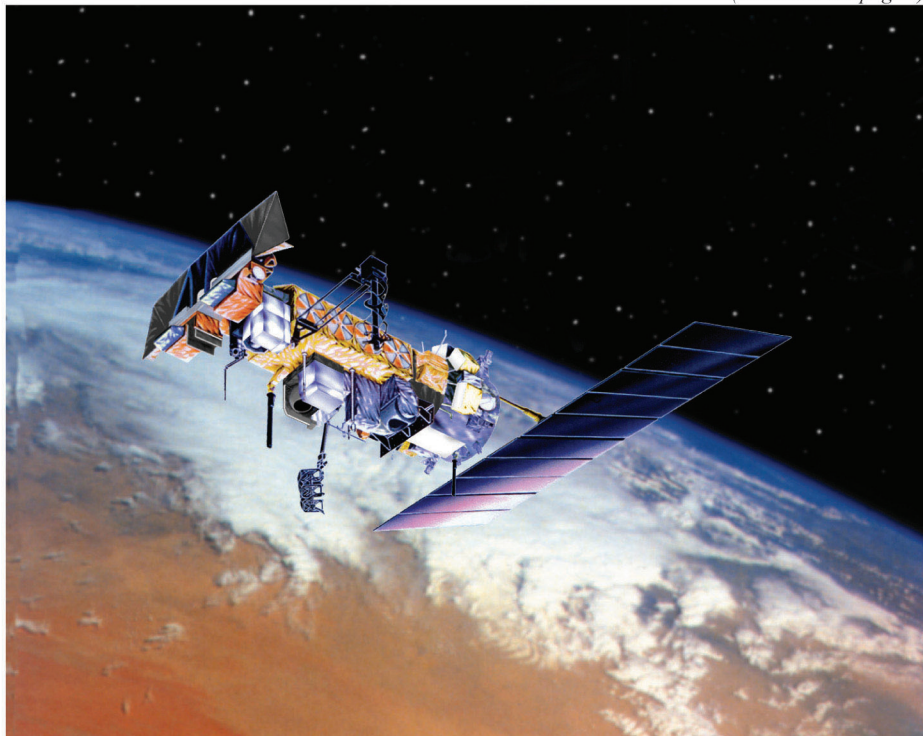
Dillingham Airfield Concern: We would like to remind all members, who frequent our monthly public star parties out at Dillingham Airfield, to take care in closing the gate when entering and leaving the airfield. We interlock or "daisy-chain"

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The Swiss Army Knife of Weather Satellites

Spotting volcanic eruptions, monitoring the health of crops, pinpointing distress signals for search and rescue teams. It's not what you might expect from a weather satellite. But these are just a few of the abilities of NOAA's newest polar-orbiting weather satellite, launched by NASA on February 6 and turned over to NOAA for full-time operations on February 26. Formerly called NOAA-N Prime and now renamed NOAA-19, it is the last in its line of weather satellites that stretches back almost 50 years to the dawn of the Space Age. Over the decades, the abilities of these Television Infrared Observation Satellites (TIROS) have gradually improved and expanded, starting from the grainy, black-and-white images of Earth's cloud cover taken by TIROS-1 and culminating in NOAA-19's amazing array of capabilities. "This TIROS series has become quite the Swiss army knife of weather satellites, and NOAA-19 is the most capable one yet," says Tom Wrublewski, NOAA-19 Satellite Acquisition Manager at NASA's Goddard Space Flight Center in Greenbelt, Maryland. The evolution of TIROS began in 1998 with NOAA-K. The satellites have carried microwave sensors that can measure temperature variations as small as 1 degree Celsius between Earth's surface and an altitude of 40 kilometers—even through

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NOAA-19 is the last and most capable of its line of weather and environmental satellites that started with the dawn of the space age.

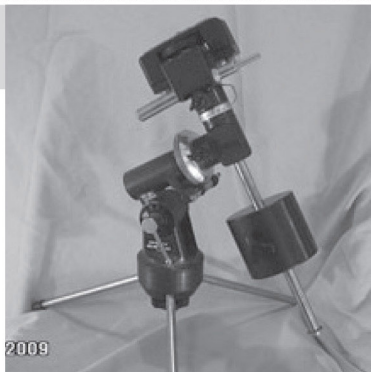


NIGHT SKY NETWORK NEWS

Mark your calendar for another IYA 2009 Teleconference on Thursday May 28th with the theme: Clusters of Stars with Dr. Steven Stahler. Teleconferences begin at 3:00 pm. Contact Night Sky Network Coordinator, **John Gallagher**, 683-0118 for details. Details are also posted on the HAS Yahoo Group Calendar.

FOR SALE!!!

- * (DI12.5) ASM Prodcuts, 12.5" mirror blank, rough ground to about f/6
- * (PG12.5) ASM Products, mathching plate glass tool, f/6
- * (CM12.5) ASM 12.5" 9 point mirror cell
- * (TF4) 2" rack & pinion focuser
- * BUSHNELL VOYAGER 4.5 Family Telescope, Model #78-2010
- * Misc. griningd and poilishing compounds, aluminum oxide, silicon carbide, cerium oxide, zirconium oxide, iron oxide (rouge), an others
- * Small equatorial mount



- * Large EQ german equitorial mount
- * Antique, custom made, ca.1968, solar prominince telescope, 4" bent refractor, corrected optics
- * Edmund Scientific, eyepices, various fl
- * Telescope tubes, various sizes
- * ATM books and texts
- * Tools and equipment

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*****KO OLINA STAR SHOW*****

HAS member and JPL Solar System Ambassador **Greg McCartney** is organizing a **star party** at **Ko'olina** on June 21 from 7 pm-10 pm. Pre-reservations are recommended and although there is a charge for the event, **HAS members are free**. Greg is asking for volunteers to help with public activities; some of the proceeds will be donated to the Hawaiian Astronomical Society.

See <http://www.starsabovehawaii.com/> for more information and registration.

{Please note that although the Hawaiian Astronomical Society is mentioned in the advertisement, this is NOT an HAS event.} ☆

Planets Close To the Moon

Times are Hawaii Standard Time

May 3, 20h, M 5.5° W of Saturn
(121° from sun in evening sky)

May 16, 29h, M 2.2° NNW of Jupiter
(91° from sun in morning sky)

May 16, 31h, M 2.4° NNW of Neptune
(90° from sun in morning sky)

May 19, 06h, M 4.8° NNW of Uranus
(63° from sun in morning sky)

May 20, 17h, M 6.1° NNW of Venus
(45° from sun in morning sky)

May 21, 05h, M 6.0° NNW of Mars
(38° from sun in morning sky)

Mercury is closer than 15° from the sun
when near the moon in May.

Other Events of Interest

Times are Hawaii Standard Time

May 6 Eta Aquarid meteors
(see Meteor Log, page 7)










May 8, 18:01h, Moon Full

**May 18, 00h, Mercury at inferior conj.
with sun**
(Passes into morning sky)

May 18, 09h, Jupiter 1.9° SSE of Juno
(71° from sun in morning sky)

May 24, 02:11h, Moon New

**May 27, 00h, Jupiter 0.39° SSE of
Neptune**
(100° from sun in morning sky)

 Mercury Too close to the sun to view in May.	 Venus About 45 deg. from the sun in May and shines brightly in the morning sky before dawn.	 Mars Mars is low in the eastern sky in the predawn hours. Look for it below Venus.
 Jupiter Rises about 1:00 AM and is near zenith by dawn. Very close to Neptune at the end of May.	 Saturn Visible in the evening sky and best observed early before it gets too close to the horizon.	 Uranus Uranus is between Venus and Jupiter in the morning sky.
 Neptune Neptune is very close to Jupiter in the morning sky before dawn.	 Dwarf Planet Pluto Rises before midnight and can be viewed in the pre-dawn hours.	 Dwarf Planet Ceres Still well-placed for viewing near Saturn in the evening sky.

(Minutes continued from page 3)

the hasps of our gate lock with that of the airfield to allow both groups easy access to the area. During the January 24th public star party someone, using bolt cutters, cut the hasp of our lock off the gate. A report was made to airport security.

Areas of Interest: President Chris Peterson led a short discussion of the return of Saturn into the nighttime sky. Discussion centered on how much of Saturn rings we would can hope to see in the upcoming months. Chris also mentioned the LCROSS Mission, which is hoping to enlist the help of amateur astronomers and imagers in observing the southern Polar Regions. LCROSS is urging amateur imagers to participate in building an imaging database of lunar Polar Regions so that when the Lunar Crater Observation and Sensing Satellite lunar reconnaissance orbiter and impactor hopefully make their mark on the southern polar regions of the lunar surface, changes may be more easily seen and understood. Hawaii astronomers will have an almost perfect view of the lunar impact when the LCROSS mission is accomplished. We are hoping to have a speaker at the March meeting to give us further details.

More – Much, Much More: Vice President Barry Peckham spoke for a short time about his latest visit to Kauai and activities with the Kauai group of astronomers. They have been very accommodating and helpful when our members have visited their island.

Barry reminded all of our participating astronomers that star parties like ours are the perfect place to foster a greater interest in astronomy and science in general. Our get-togethers allow us to talk freely with those around our telescopes. When the lines have thinned out a bit, quiet times give us the opportunity to hand over the gentle operation of our telescopes to those of the public we feel will use the opportunity well. Allowing a child or an adult to handle the telescope, to aim and find an object by themselves is an empowering experience. Fostering astronomy in this way opens the universe to a newcomer.

Tee shirts: Jim MacDonald is taking orders for club tee shirts and reminds members to renew their memberships on time.

As there was no further business, the meeting was adjourned at 8:58 p.m. Refreshments were served.

Respectfully Submitted,
Gretchen West



Meteor Log - May 2009

by Mike Morrow

Increasing twilight hampers observations, but the month's major shower, the *Eta Aquarids* just escapes the full Moon. Thanks Zena. Daylight radio showers are good.

Wednesday the 6th, the *Eta Aquarids*. Radiant 22h32m -01 deg. Rates are variable, but may reach about 60 an hour. the shower is related to Halley's Comet which last came by in 1986.

That is about it for the month as the other visual showers may produce only 3 or 4 meteors an hour since the radiant will not be directly overhead.

If you are interested in observing meteors contact Tom Giguere at 672-6677, or write Mike Morrow, P.O. Box 6692, Ocean View, Hawaii 96737



	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 18	26 For more events look here.	27	28	29 7p Lanakila Elementary (Star Party)	30 7p Ala Wai Elementary (Star Party)	1 7p Mililani Mauka Elementary (Star Party)	2 1p Astronomy Day Displays & Solar Viewing
	National Dark Sky Week						7p Kahala & Waialeale Public Star Party
Week 19	3	4	5 7:30p HAS Meeting	6	7	8	9 Full Moon
Week 20	10	11	12	13	14	15 7p Red Hill Elementary (Star Party)	16 6:30p Dillingham Club Star Party
Week 21	17	18	19	20	21	22	23 6:30p Dillingham Public Star Party
Week 22	24 New Moon	25 For more events look here.	26	27	28 3p Teleconference - Clusters of Stars	29 7:30p Hickam Elementary (star Party)	30 7p Kahala & Waialeale Public Star Party
Week 23	31	1	2 7:30p HAS Meeting	3	4 7:45p Waialeale Elementary (Star Party)	5	6

HAS Yahoo Group

<http://tech.groups.yahoo.com/group/HawaiianAstronomicalSociety/>

(Superstar continued from page 4)

clouds. Other missions have added the ability to track large icebergs for cargo ships, monitor sea surface temperatures to aid climate change research, measure the amount of ozone in Earth's protective ozone layer, and even detect hazardous particles from solar flares that can affect communications and endanger satellites, astronauts in orbit, and city power grids. NOAA-19 marks the end of the TIROS line, and for the next four years it will bridge the gap to a new series of satellites called the National Polar-orbiting Operational Environmental Satellite System. NPOESS will merge civilian and military weather satellites into a single system. Like NOAA-19, NPOESS satellites will orbit Earth from pole to pole, circling the planet roughly every 100 minutes and observing every location at least twice each day.

NPOESS will have yet more capabilities drawn from its military heritage. Dim-light sensors will improve observations of the Earth at night, and the satellites will better monitor winds over the ocean — important information for ships at sea and for weather and climate models. "A lot more capability is going to come out of NPOESS, improving upon the 161 various environmental data products we already produce today," Wrublewski says.

Not even a Swiss army knife can do that many things, he points out.

For more on the NPOESS, check out <http://www.npoess.noaa.gov>. Kids can find out about another NOAA satellite capability—tracking endangered migrating species—and play a fun memory game at http://spaceplace.nasa.gov/en/kids/poes_tracking.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



A Note From Travis:



Dear Hawaiian Astronomical Society,

Thank you so much for the \$50, the Certificate, the Membership, a club T-Shirt, and a subscription to either Astronomy or the Sky and Telescope magazine. I really appreciate your generosity and your support to the Hawaii State Science Fair. It really means a lot to me, as a 9th grader, to win this award and I am very grateful for it.

Aloha, Travis Le



Travis Le, HAS member and 3rd place winner at the 2009 Hawaii State Science and Engineering Fair

HAS Financial Report for the month ending as of Apr. 15, 2009

Initial Balance:	\$4,949.82
<i>Receipts:</i>	
Dues Received	224.00
Donations	105.00
Magazine Payment	68.00
T-Shirt Sales	85.00
Total Income:	\$397.00
<i>Expenses:</i>	
Astronews	230.03
Magazine Subscription	134.95
Postage	43.85
Refreshments	00
T-Shirt Supply	00
Total Expenses:	\$408.83
Final Balance	\$4,937.99

There is one new member this month, **Gregory Wilson**. A special thanks to **Warren Arakaki** and **Kevin Suehiro** for their donations. Thanks and clear skies to all renewing their membership during the month

Upcoming School Star Parties 2009

Fri.	5/15	Red Hill Elementary (~up to 200)
Fri.	5/29	Hickam Elementary
Thurs.	6/4	Waialele Elementary (4 classes, 3rd gr.)
Mon.	6/8	Camp Anuenue (Mokuleia) ~60-70 kids, 50 adults *Camp Anuenue is a camp for kids with cancer, or cancer survivors age 7-17. While there will be a nearly full moon on this night, this is for a great cause and the "theme" will be Astronomy.

If you are interested in helping out at a school star party, sign up at the HAS meeting or contact the star party coordinator; FORREST LUKE at **623-9830** or lukef003@hawaii.

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until the next meeting and next Astronews.

In the meantime, let's look forward to more meetings in the planetarium. This will have advantages. We'll be able to use the planetarium's capabilities, of course. In addition to those functions specific to the planetarium, it also has an internet connection. This opens up interesting possibilities for our meetings.

As always, input for the meetings from our members is welcome. However, for planning purposes it helps a lot if people contact me before the meeting if they want to make a presentation. Even a day's notice is better than none at all. Just use the phone or e-mail contact information for me that's in the Astronews.

See you in the planetarium!

Chris



Science Fair Awards continued from page 2:



Hawaiian Astronomical Society Secretary Gretchen West with the Niu Valley team award winners Kira Fox and Gina Hyun.

The Hawaiian Astronomical Society also awarded its own prizes for projects related to astronomy. Winners included Travis and a team from Niu Valley Intermediate School. Gina Hyun and Kira Fox won the HAS (Hawaii Academy of Science) award in the Junior Category with their project "1270 Datura". Their research attempted to determine the shape and rotation of the named minor planet. Both groups were given a certificate of achievement, HAS (Hawaiian Astronomical Society) membership, a magazine subscription, and a club T-Shirt. In addition, the Senior Research Category winner (grades 9-12) Travis, was presented \$50.00 in cash.



Hawaiian Astronomical Society

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M42, M43 and the Running Man taken by member STEVE CHUN.

Image info: 4 10 min frames guided, ISO 800 - taken on a Meade 80mm APO with a Canon XTi (Unmodified) - guided by a mini Borg 50mm with an Orion Autoguider – Frames processed and stacked using ImagesPlus.

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