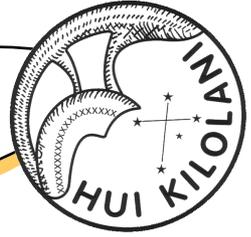


# The Astronews



Volume 55, Issue 4

April 2007

[www.hawastsoc.org](http://www.hawastsoc.org)

## A Small Victory Against Light Pollution

— by Mike Linnolt

Recently, I heard that the City & County of Honolulu will replace the standard round bulb streetlights around your home with flat bulb, cut-off fixtures to reduce glare, for FREE! On Jan 17, 2007 I contacted the chief of the Mechanical/Electrical division by telephone, and followed up with an email, where I included a photo of my street and marked the lights which needed replacement. On Jan 22, I got a reply from them that they will begin their investigation. On Feb 23, I was pleasantly surprised to receive a letter from them saying my request for street-light replacement had been approved, just as I had asked! On Mar 8, I heard the Facility & Maintenance vehicle drive up and

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### Upcoming Star Parties

|                     |                 |                       |
|---------------------|-----------------|-----------------------|
| <b>Public Party</b> | <b>Apr 7</b>    | <b>Dillingham</b>     |
| <b>Club Party</b>   | <b>Apr 14</b>   | <b>Dillingham</b>     |
| <b>Public Party</b> | <b>Apr 21*</b>  | <b>Kahala/Waikele</b> |
| <b>Public Party</b> | <b>May 5</b>    | <b>Dillingham</b>     |
| <b>Club Party</b>   | <b>May 12</b>   | <b>Dillingham</b>     |
| <b>Public Party</b> | <b>May 19**</b> | <b>Kahala/Waikele</b> |

\*Astronomy Day \*\*Sidewalk Astronomy Day

### Upcoming Events:

- The next meeting is at 7:30 p.m. on **Tuesday, Apr. 3<sup>rd</sup>** at the Bishop Museum.
- Bishop Museum's next planetarium show with **Barry Peckham** is Friday, **Apr. 6<sup>th</sup>** at 7:00 pm.

## President's Message

Why do I take my telescope to star parties to show people the sky? It's not just because I like to share the way Saturn and the Orion nebula look at high magnification, or that I want to impress people who've never looked through a telescope before and hear them say, "I can see craters on the Moon!" That's fun to hear, but I'm hoping for more than that.

Sometimes, you can almost hear someone's mind expanding when they look, listen, and think at star parties. Most of us spend our time on the tasks of work and daily living, then we relax in ways that don't tax our brains very much. Star parties provide an opportunity to expand our minds beyond their usual narrow range of concerns.

At the Planetary Data Center, I show students globes of the terrestrial planets, all to the same scale. Earth is about 16 inches in diameter. At that scale, the Sun is the size of a 10-story building three miles away. Nothing much but Mercury and Venus lie between the Earth and Sun. The Moon is a four-inch globe 42 feet from Earth.

At star parties, I try to use the real objects we look at in the same way. Saturn looks small in the telescope even though it could swallow hundreds of Earths, but that's because it's a billion miles away. The nearest star is thousands of times further, and so on.

Understanding the size and age of the universe helps us put our own concerns in perspective, yet it also helps us understand the rare and fragile nature of the speck of dust we live on. I don't expect to radically change the way of thinking of everyone who looks through my telescope, but I try to give everyone an opportunity to see their environment in a different way.

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*The Astronomer* is the 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 e-mail. The deadline is the 15<sup>th</sup> of each month. We are not responsible for unsolicited artwork.

## Planets Close To the Moon

Times are Hawaii Standard Time

- Apr 7, 22h, M 5.9° S of Jupiter  
(118° from sun in morning sky)
- Apr 12, 15h, M 1.9° SSE of Neptune  
(61° from sun in morning sky)
- Apr 13, 15h, M 0.49° NW of Mars  
(48° from sun in morning sky)
- Apr 14, 10h, M 0.89° NNW of Uranus  
(37° from sun in morning sky)
- Apr 15, 10h, M 4.3° NNW of Mercury  
(17° from sun in morning sky)
- Apr 19, 21h, M 3.3° N of Venus  
(40° from sun in evening sky)
- Apr 25, 00h, M 1.0° NNE of Saturn  
(103° from sun in evening sky)

## Other Events of Interest

Times are Hawaii Standard Time

- Apr 2, 07:15h, Moon Full
- Apr 9, 13h, 3 Juno at opposition
- Apr 16, 20h, Moon at perigee only 5.8 hours  
before new moon – high tides expected.
- Apr 17, 01:36h, Moon New
- Apr 21, Astronomy Day
- Apr 22, Lyrid Meteors
- Apr 28, 18h, Mars 0.68° SSE of Uranus  
(51° from sun in evening sky)

## Planets in March

|  |   |  |
|--|---|--|
| <p> <b>Mercury</b></p> <p>is low in the eastern sky before sunrise during the first half of the month but very difficult to find.</p> | <p> <b>Venus</b></p> <p>shines brightly in the western evening sky at Mag. -4.1. Sets about 3 1/2 hours after the sun.</p>           | <p> <b>Mars</b></p> <p>rises a couple of hours before sunrise at magnitude +1.0. At 5" is still too small to view any detail.</p> |
| <p> <b>Jupiter</b></p> <p>rises before midnight and shines brightly in the morning sky at magnitude -2.3.</p>                       | <p> <b>Saturn</b></p> <p>shines brightly in the south at sunset at magnitude +0.4. Look for it in the SW later in the evening.</p> | <p> <b>Uranus</b></p> <p>is low in the east before sunrise in April.</p>  |
| <p> <b>Neptune</b></p> <p>can be found near Mars in the morning sky.</p>  | <p> Dwarf Planet <b>Pluto</b></p> <p>rises about midnight and can be viewed before dawn in the eastern sky.</p>                    | <p> Dwarf Planet <b>Ceres</b></p> <p>is still too close to the sun to be viewed in March.</p>                                   |

Pres. Chris Peterson called the March 6, 2007 meeting of the Hawaiian Astronomical Society to order at 7:40 p.m. The meeting was held at the Atherton Halau of the Bishop Museum. In attendance were thirty members and two visitors.

## NEW BUSINESS

Space Lecture Series- The upcoming Hawaii Space Lecture Series will present Dr. Gary Huss, a planetary scientist, to speak on “Stardust One Year Later: What Have We Learned About Comet Wild 2?” The lecture will take place on March 27, 2007 at 7:30 p.m., at the NASA Pacific Regional Planetary Data Center, room 544 of the POST Bldg, at the University of Hawaii, Manoa. For further information you can go to <http://www.higp.hawaii.edu/prpdc>.

Pres. Peterson spoke briefly, reviewing last month’s lecture on the SMART-1 Lunar Mission, “From Launch to Crash.”

Chris discussed current astronomy news items: observations in lower and higher resolution as well as different wavelengths; The New Horizons Mission will study the magnetic fields and magneto-tail of Jupiter. We can expect frequent reports from the spacecraft which will soon be passing Jupiter and its moons; The Rosetta Mission of the European Space Agency will be getting a gravity assist from the planet Mars and will be using a ultraviolet spectrometer to evaluate the solar wind’s effect upon the magnetic field of the planet Jupiter, as it continues on its mission.

Speaker for our April Meeting – Dr. Don Mackholz has agreed join us at our April 2007 meeting as speaker.

He will be bringing us information about Comet P-96 Mackholz, a periodic comet.

Star Party Report – We have agreed to help out at the Bishop Museum’s “Mad About Science Day.” Club telescopes will be set up on the lawn, from dusk to nine p.m. Forrest sent a sign up sheet around for those willing to help out. There are four upcoming events in April, to be discussed at the next meeting. You can contact Forrest by e-mail during the month of March, as he will be on the Mainland, 3-15 through 3-29.

Astroscan Sale – The Astroscan, a good little rich field scope, donated to the club by Susan Girard, was auctioned off to Richard Frey.

Donation – Member Dr. John Sandor has donated a 4.5” Dobsonian telescope with tripod and one eyepiece. The telescope has a motor drive. It is “like new” and a “fixer upper.” It will be auctioned off at the April meeting. If interested, contact Barry.

Messiers in March – Just a reminder that the March 17th club star party at Dillingham Field has been designated as Messier Marathon night.

Book Review – VP Peckham “re”introduced club members to the Year-Round Messier Marathon Field Guide, by Harvard Pennington. Barry led us through the history of this yearly event for visual observers.

Upcoming Events – The Hawaii State Science and Technology Fair will take place April 2nd, 3rd, and 4th at the Neil Blaisdell Center. April 21st is this year’s Astronomy Day, where we will again set up at Kahala Mall for daytime observations. Later that

*(Continued on page 5)*

April is much like February in that more sporadic fireballs may be observed. The months main event is the return of the partly moonless Lyrids.

Sunday the 22, **the Lyrids**. Radiant 18h04m +34deg.

The actual maximum is forecast to be 00:30 in Hawaii. Rates may reach about 60 meteors an hour at maximum, but about 20 an hour is more normal. April 22nd has a waxing crescent moon which should set between midnight and 1 am local time in Hawaii. It might be better is one could get to Europe, North Africa, or central Asia to observe. Lyrids are swift, occasionally bright, with about 25% leaving trains.

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

## Astronomical League Membership Notice

Our membership in the Astronomical League has been recorded and we expect to receive our first copy of the Reflector before too long. Their newsletter is published four times a year and mailed directly to HAS members who were on the rolls as of the end of 2006. (This address listing will be updated quarterly). For those interested in learning more about the League please visit <http://www.astroleague.org>

*Minutes* (Continued from page 4)

evening will be our monthly Kahala/Waialele suburban Star Party. The UH Manoa, Institute for Astronomy holds its Open House the following week, April 29th from 11:00a.m. to 4:00p.m.

1st Annual International Sidewalk Astronomy Night – Be spontaneous. Choose a place with a good open sky with a good population of foot traffic, then set up a scope and surprise people and help them to observe the night sky Sidewalk Astronomy Night is scheduled for Friday May 18th (yes, the same night as Kahala/Waialele).

Night Sky Network – We viewed a selection of items on the NASA Cassini Project DVD with a short discussion following.

For Your Viewing Pleasure – For those of you who want to view Saturn

with the best results, Barry suggests that perfect seeing occurs on those nights when there is a hazy sky with very gentle, southerly (Kona) winds. We are looking for very low atmospheric turbulence and enough particulates in the sky to knock out glare.

Regulus is beautiful right now as is Mira in Cetus. There have been two novas in Scorpio earlier in the month of February. Hope you got the opportunity to view them.

The meeting was adjourned at 9:05 p.m. and refreshments were served. Joanne Bogan conducted a rousing show in the Planetarium for interested members, following the meeting was adjourned at 9:15 p.m. and refreshments were served.

Respectfully Submitted,  
Gretchen West

**Small Victory** (Continued from page 1)  
within an hour, the lights had been replaced. So, a grand total of 7 weeks transpired between my initial contact with the City and the new lights outside my house! Not bad for a government bureaucracy. The flat bulb fixtures have zero output from about -5 degrees to the zenith, so there is no direct glare light sideways or upwards at all. You just see a cone of light going downwards to illuminate the ground, just as it should be. This has

dramatically improved my ability to observe from my own house. I live in Kaimuki, and the Milky Way is now visible!! Now, if we could get one or two people per block to make the same request, the whole city could be significantly improved in regards to glare and light pollution, as the only light going upwards would be that which is reflected off the ground, maybe a 5 or 10 fold reduction! To request streetlight replacement the contact information is:

### **Gerald Hamada**

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**President** (Continued from page 2)  
We seldom know the extent of the influence we have on others, but I like to think that if I make enough small

efforts, it will add up to something very much worth having done.

Chris



**Caroline Herschel** (Mar. 16, 1750 – Jan. 9, 1848)  
In 1782 when her brother accepted the office of astronomer to George III and moved to the Slough area. Caroline became his constant assistant in his observations, and also executed the laborious calculations which were connected with them. Her chief amusement during her leisure hours was sweeping the heavens with a small Newtonian telescope. By this means she detected in 1783 three remarkable nebulae, and during the eleven years from 1786 to 1797 eight comets, five of them with unquestioned priority—among them Comet Encke. Her first comet, discovered on August 1, 1786, was the first comet discovered by a woman, and won her recognition. In 1828 the Royal Astronomical Society presented her with their Gold Medal—no woman would be awarded it again until Vera Rubin in 1996.

**HAS Financial Report as of March 15, 2007**

|                             |                       |
|-----------------------------|-----------------------|
| Initial Balance: .....      | <b>\$4,770.52</b>     |
| Receipts:                   |                       |
| Donations .....             | 191.05                |
| Dues Received.....          | 306.00                |
| S&T Payments.....           | 98.85                 |
| Total Income:.....          | <b>\$595.85</b>       |
| Expenses:                   |                       |
| Astronews.....              | 141.55                |
| Magazine Subscriptions..... | 132.85                |
| Refreshments .....          | 8.28                  |
| Total Expenses: .....       | <b>\$282.68</b>       |
| <br>Ending Balance: .....   | <br><b>\$5,083.69</b> |

This month we added six new members. They are **Ellen Pyle, Dr. Gareth Wynn-Williams, Eugene Shimabukuro, Gregory Ha, Kale and Elizabeth Houser**. The club thanks *Richard Frey, James Branchaud, Elizabeth Taki-shita* and *Kevin Suehiro* for their generous cash donations. An appreciative thanks also those renewing their membership this month. Clear skies to everyone!

**Special Notice**

HAS will publish a complete listing of Club members in the **June 2007** issue of the Astronews. This publication is required by Club by-laws, Article III, Section 2 Para C(e) and Article VIII, Section 1B. Unless notified otherwise, this list will include all member's names, addresses, and phone numbers. If you wish to have some or all of your data excluded, please notify the Club Treasurer, Jim MacDonald before **May 15, 2007** by sending an e-mail to jim.macd@hawaiiintel.net or by written notice to the Club's post office box listed on the back page of this newsletter. Please be advised that this listing is intended for Club members' personal use only in contacting one another. With the exception of membership in the Astronomical League, HAS does make this list available to, nor do we sell its contents to anyone for any purpose. Please let us know if you do not wish to be included.

Join the

**Friends of the Institute for Astronomy (IfA)**

As a "Friend" you can be directly involved in the mission of the University of Hawaii's Institute for Astronomy. You will be invited to meet with IfA and visiting scientists, attend star parties and other activities. You will also receive quarterly newsletters and invitations to special events at the IfA. For more information and an application form go to

[www.ifa.hawaii.edu/friends](http://www.ifa.hawaii.edu/friends)

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A mere 10 million light years away, NGC 253 is one of the nearest spiral galaxies. Discovered by Caroline Herschel with her small Newtonian sweeper of 27 inch focal length at 30 power.