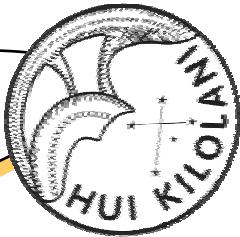


# The Astronews



Volume 52, Issue 9

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

September 2004

## W. Bruce Blair Award

HAS has been affiliated with the Western Amateur Astronomers (WAA) for many years. Annually, WAA awards its W. Bruce Blair Medal to a deserving astronomer. The list of fifty past recipients reads like a Who's-Who of astronomy, including; Walter Scott Houston, Clyde Tombaugh, Thomas Cave, John Dobson, David Levy, Don Machholz, and many more. The G. Bruce Blair Medal is the highest honor which the WAA can bestow. It is their *Nobel Prize* of amateur astronomy.

The 2004 recipient is **Jane Houston Jones**, a well-known West Coast amateur astronomer and member of HAS since 1995. Jane and her husband, **Morris "Mojo" Jones**, periodically visit the islands and attend our Dillingham star parties. As a side note, they

(Continued on page 11)

## Inside this issue:

Club Information	2
Observer's Notebook	3
Meeting Minutes	4
Meteor Log	5
Space Place	6
Telescope Workshop	8
Treasurer's Report	10



## Upcoming Star Parties

Club Party	Sep 11	Dillingham
Public Party	Sep 18	Dillingham
Public Party	Sep 25	Kahala/Waikale
Club Party	Oct 9	Dillingham
Public Party	Oct 16	Dillingham
Public Party	Oct 23	Kahala/Waikale

## Upcoming Events:

- The next meeting (including a swap meet) is at 7:30 p.m. on Tue. Sept. 7<sup>th</sup> at the Bishop Museum.
- **Sam Rhoads** next planetarium show is on Monday, Sept. 6th (Labor Day).

## President's Message

If you want a job that has little downside for poor performance, try forecasting meteor showers. This was supposed to be potentially a very good year for Perseids. Maybe it was, but I haven't heard any "glowing" reports.

Tom Giguere, Forrest Luke, Sapavith Vanapruks, and I went out to our new Kuonia Road site on Wednesday, August 11th, to check out the shower. While the sky was mostly overcast, there were a few open patches. I stayed about an hour and a half and saw five meteors, all Perseids. Each one seemed to be different in location, speed, length of trail and brightness. Some of the others saw a few I missed, but conditions didn't really allow us to judge whether this year's shower was better than average, or even of average quality.

The following Saturday night I was camping out at the beach. I didn't spend all my time looking at the sky, but I was treated to one nice Perseid that crossed nearly overhead. Floating on your back in the water is a great way to see as much of the sky at once as possible. I could tell by the oohs and aahs that occasionally punctuated the night that others caught some meteors that I didn't see. The Perseid shower has wide "shoulders" that extend for many days on each side of the peak, but with greatly reduced numbers of meteors visible per hour.

Spacecraft face many dangers, but once they leave Earth, clouds aren't among them. The Messenger spacecraft was successfully launched after a one-day weather delay, and it's now speeding its way toward Mercury.

Cassini, still on its first orbit of Saturn and on its way to an October flyby of Titan, has discovered two new moons of Saturn. Actually, one of them may have been

(Continued on page 7)

## Hawaiian Astronomical Society P.O. Box 17671 Honolulu, Hawaii 96817

### President

*Chris Peterson*

956-3131

chrisp@higp.hawaii.edu

### Vice President

*Barry Peckham*

524-2450

barry@litebox-telescopes.com

### Secretary

*Gretchen West*

735-0482

gwest@pixi.com

### Treasurer

*Jim MacDonald*

261-2162

jim.macd@verizon.net

### Board Members-at-Large

*John Gallagher* 683-0118

gallaghej002@hawaii.rr.com

*Nick Bradley* 735-3634

nickjkbradley@hotmail.com

### The Astronews Editor

*Paul C. Lawler*

395-8121

paul@kilolani.net

### HAS Webmaster

*Peter Besenbruch*

prb@lava.net

*The Astronews* 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.

## Observer's Notebook—September 2004 by Jay Wrathall

### Planets Close To the Moon

Times are Hawaii Standard Time

- Sep 9, 14h, M 5.3° N of Saturn  
(53° from sun in morning sky)  
Sep 10, 10h, M 6.5° NNE of Venus  
(44° from sun in morning sky)  
Sep 12, 18h, M 3.4° NNE of Mercury  
(17° from sun in morning sky)  
Sep 24, 08h, M 5.0° SSE of Neptune  
(131° from sun in evening sky)  
Sep 25, 19h, M 3.6° SSE of Uranus  
(150° from sun in evening sky)

Mars and Jupiter are closer than 15° from the sun when near the moon in September.

### Other Events of Interest

Times are Hawaii Standard Time

- Sep 9, 04h, Mercury at greatest elongation  
(18° W of the sun in morning sky)  
Sep 12, 19h, Asteroid 4 Vesta at Opposition  
Sep 14, 04:28h, New Moon  
Sep 15, 03h, Mars at Conjunction with Sun  
(Passes into morning sky)  
Sep 21, 14h, Jupiter at Conjunction with Sun  
(Passes into morning sky)  
Sep 22, 06:30h, Fall or Autumn Equinox  
Sep 28, 03:08h, Full Moon

## The Planets in September

 <b>Mercury</b> Mercury is visible in the east just before sunrise in the middle of September.	 <b>Venus</b> Venus dominates the morning sky, rising about 4 hours before the sun. Mag. -4.2.	 <b>Mars</b> Mars is at conjunction with the sun this month, and is lost in the glare of the sun.
<b>21 Jupiter</b> Jupiter, like Mars, is at conjunction with the sun this month, and cannot be viewed.	 <b>Saturn</b> Saturn starts the month near Venus, but moves further toward the west later in Sep. Mag. +0.3.	 <b>Uranus</b> Uranus was at opposition last month and is easily viewed late in the evening sky.
 <b>Neptune</b> Neptune is also at opposition this month. It is best viewed late in the evening.		 <b>Pluto</b> Pluto is well placed for viewing in the evening sky near the Serpens - Ophiuchus border

# Meeting Minutes

H.A.S. Secretary

The general membership meeting was called to order at 7:37 p.m. by Vice President Barry Peckham in the Atherton Halau. Thirty-three members and one visitor were present. President Chris Peterson was unable to attend.

## Old Business:

Invitation to Gov. Linda Lingle - Gov. Lingle regrets that she will not be able to attend the Kahala Urban Star Party on August 21, 2004.

Visitors - V.P. Barry Peckham greeted the three newcomers at this months meeting. One visitor is a new resident from up-country Maui and the club there. V.P. Barry Peckham suggested that our club become more active in networking with other clubs in the state.

The Dept. of Transportation has renewed our authorization for use of Dillingham Airfield site, through July 31, 2005. We provide list of Dillingham Star Party dates to the DOT. Everyone is urged to help the public stay off the taxi way and runway.

Bishop Museum Telescope - Jim MacDonald reports that the museum telescope repair is close to being completed. The final issues is replacement of a nylon sprocket gear for the tracking motor. Anyone who can help find or fabricate a gear, call Jim.

Newcomers Telescope Training Sessions: are scheduled for October 2, 2004 at Kahala Community Park. Those wanting help will need to phone BOD members to verify their attendance. Help for those ETX users will be available.

## New Business:

New Asterism Contest - Find your own new asterism, Barry asks that you document it, and create 3 clues to help

others to find your asterism. Clues should include: #1 Location, #2. What power is it best seen, and #3. A description of the configuration of stars to look for in the eyepiece. A prize for the best asterism is offered.

Coronado PST - Paul Lawler displayed and spoke of the finer points of this solar viewing tool. With a beginning price of \$499 Paul finds this 40 mm solar viewing scope a gem.

Beginner Topics: *Dark Adaptation* Creating an environment in which the pupil of the eye is not excited to contract is optimum. Barry Peckham spoke briefly about different ways eyes can become better adapted for viewing in a dark environment. Discussion covered the use of different colored lights, red, blue, and green, and their effect on light receptors in the eye. Other aspects of dark adaptation were intensity of light, light pollution in the skies, and glare off of eyepieces. Simple solutions to adapt eyes range from eye patches, and red lens goggles to wearing a black tee shirt over your head during viewing at the eyepiece. Mel Levin will speak on *Star Hopping* in September.

Waikiki / Kahala Suburban Star Parties: Great time to share the skies with friends and family, astronomy buffs and the general public. Reasons for public astronomy are to come for "the People - the Sky - the Sharing." We urge all members to come and participate, especially those with scopes.

Pride of Aloha Cruise: Joann Bogan spoke briefly about the "sky talks" she and other Bishop Museum employees are leading on the cruise

(Continued on page 7)

## Perseid Power

Despite the weather on Oahu, Mike Morrow reports that this year's shower viewed from the mag.6 skies of Ocean View was the best he has seen in 15 years with rates around 30 to 40 per hour, and near perfect viewing conditions.

September produces the year's best sporadic rates from northern sites. There are also several mysterious minor showers. Despite this September is a poor relation to August with no major excitements like the Perseids.

Thursday the 9th, the **Delta Aurigids**. Radiant 04h00m +47 deg.

Expect 5 or less meteors per hour. The moon will create a few problems for the maximum. Delta Aurigids are normally swift and typically faint.

Sunday the 19th, the **Piscids**. Radiant 00h20m -01 deg.

This drizzle has generally less than 3 meteors per hour. The probable peak of this minor shower is well timed this year with the moon giving no trouble during the second half of the night. One should observe from the 18th thru the 21st. Low rates of chiefly faint, slow meteors may be spotted all month from a possibly multiple radiant near the vernal equinox point in Pisces.

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

## Resolution on Green Laser Pointers

ratified and adopted by the HAS on July 6, 2004

I. No laser in excess of 5mW output shall be used by any person at any event sponsored by the Hawaiian Astronomical Society (HAS). This restriction also applies to HAS members participating in events sponsored by other organizations such as schools, scouting groups, churches, etc., which include HAS as a participating organization. This maximum output level will not exceed lasers found in category Class IIIA as spelled out in ANSI Z136.1-1993.\*

II. Individuals using lasers are expected to exercise utmost caution in their handling of such instruments. Lasers used as pointers should only be aimed skyward, not at any aircraft, or where they might reflect off of shiny surfaces, or where there is a possibility of hitting any person or animal.

Telescopes in the process of being aligned by a laser need to be pointed in such a manner that any laser beam escaping from the scope's optical path will be directed skyward.

\* Google is your friend!

by Patrick Barry

The Hubble Space Telescope isn't the only satellite that scientists have fought to keep alive beyond its scheduled retirement. Scientists also went to bat for a satellite called EO-1, short for Earth Observing 1, back in 2001 when the end of its one-year mission was looming.

The motivation in both cases was similar: like Hubble, EO-1 represents a "quantum leap" over its predecessors. Losing EO-1 would have been a

the caldron of chemicals within these objects leave their "fingerprints" in the light's spectrum of colors. Analyzing that spectrum is a powerful way for scientists to study the environment and assess its health, whether it's measuring nitrate fertilizers polluting a lake or a calcium deficiency stressing acres of wheat fields.

Landsat 7 measures only 8 points along the spectrum; in contrast, EO-1 measures 220 points (with wave-



These images, made from EO-1 data, are of La Plata, Maryland, before (left) and after (right) a tornado swept through May 1, 2002.

great loss for the scientific community. EO-1, which gazes back at Earth's surface instead of out at the stars, provides about 20 times more detail about the spectrum of light reflecting from the landscape below than other Earth-watching satellites, such as Landsat 7.

That spectral information is important, because as sunlight reflects off forests and crops and waterways,

lengths between 0.4 to 2.5  $\mu\text{m}$ ) thanks to the prototype Hyperion "hyperspectral" sensor onboard. That means that EO-1 can detect much more subtle fingerprints than Landsat and reveal a more complete picture of the chemicals that comprise the environment.

As a NASA New Millennium Program mission, the original purpose  
*(Continued on page 11)*

## School Star Parties

by Forrest Luke

School and Group Star Parties are being coordinated by Forrest Luke. If you are contacted for a school star party, please have the school contact Forrest directly by phone at 623-9830 or via e-mail at <lukef003@hawaii.rr.com>.

As a reminder, upcoming scheduled school star parties are:

- 28 Aug 2004 Girl Scout Camp**
- 17 Sep 2004 Iriquois Point Elementary**
- 15 Apr 2005 Pearl Harbor Elementary**
- 26 Apr 2005 Ala Wai Elementary**
- 13 May 2005 Lanikai Elementary**
- 27 May 2005 Kipapa Elementary**

If you signed up and need help finding the school, or if you didn't sign up, but still want to participate, please contact Forrest.

**Pres. Report** (*Continued from page 2*)  
seen by Voyager when it flew by. Almost certainly, more discoveries of that kind will be made by Cassini in the years ahead.

The Mars Exploration Rovers continue to function with very few problems, but age is taking its toll on them (as it does on all of us). It's easy to forget that Mars Odyssey, Mars Global Surveyor, and the European Mars Express missions all continue functioning in orbit around Mars. In

fact, all of those spacecraft have participated in sending communications between the rovers and Earth. This is a golden age of planetary exploration.

Earlier this evening, I saw a beautiful pairing of Jupiter and the young Moon. Just as with meteors, the things we see by chance often leave us with the strongest impressions. Knowledge is one thing, but beauty and wonder are something else. With astronomy, we get it all.

*Chris*

---

**Minutes** (*Continued from page 4*)  
ship of the same name. Joanne led two lectures and three light pen sky viewing sessions. Week-long cruises sail between the islands.

Club/Public Star Parties - Code for Dillingham Field lock was discussed. The code has changed. If you do not know the new code please ask a BOD member. We are asking members not to explain the methods for determining for code to non-members.

Perseid Meteor Showers at alternate viewing Site: Kunia viewing site

at Kunia Camp is available starting about 10 P.M. on the night of August 11th into the early hours of August 12. Directions to site were given to interested members.

The meeting adjourned at 9:03 p.m. Refreshments were served and at 9:15 interested members met in the Planetarium for a *Skies Tonight* with Paul Lawler and Joanne Bogan.

Respectfully Submitted,  
Gretchen West, HAS Secretary

## Quarterly Telescope Workshop

October 2, 2004

*Okay... I saw the shiny blue tube, the computer, the array of sockets on the base and I got carried away... but how do I actually use this thing?*

*Polar Alignment, Alt/Az Alignment, Drive Training, Backlash, Home Position—what does it all mean?*

Get the answers at the Quarterly HAS Telescope Workshop. This quarter's workshop will focus on the **Meade ETX** series and Autostar controller, but many of the principles we discuss will also apply to other motorized and GOTO telescopes. Please bring your scope and arrive BEFORE sunset, as there are several alignment steps best conducted in daylight.



The HAS Quarterly Telescope Workshops are open to all HAS members and guests. If you know someone who has bought (or is considering purchasing) an ETX and is having trouble, please feel free to bring them along.



HAS Members provide hot stars to go with the cool jazz (or is that cool stars to go with the hot jazz?) at the Hawaii International Jazz Festival.

# Cartoon Laws of Physics

Author Unknown

**Cartoon Law I:** *Any body suspended in space will remain in space until made aware of its situation.*

Daffy Duck steps off a cliff, expecting further pastureland. He loiters in midair, soliloquizing flippantly, until he chances to look down. At this point, the familiar principle of 32 feet per second per second takes over.

**Cartoon Law II:** *Any body in motion will tend to remain in motion until solid matter intervenes suddenly.*

Whether shot from a cannon or in hot pursuit on foot, cartoon characters are so absolute in their momentum that only a telephone pole or an out-size boulder retards their forward motion absolutely. Sir Isaac Newton called this sudden termination of motion the stooge's surcease.

**Cartoon Law III:** *Any body passing through solid matter will leave a perforation conforming to its perimeter.*

Also called the silhouette of passage, this phenomenon is the specialty of victims of directed-pressure explosions and of reckless cowards who are so eager to escape that they exit directly through the wall of a house, leaving a cookie-cutout-perfect hole. The threat of skunks or matrimony often catalyses this reaction.

**Cartoon Law IV:** *The time required for an object to fall twenty stories is greater than or equal to the time it takes for whoever knocked it off the ledge to spiral down twenty flights to attempt to capture it unbroken.*

Such an object is inevitably priceless, the attempt to capture it inevita-

bly unsuccessful.

**Cartoon Law V:** *All principles of gravity are negated by fear.*

Psychic forces are sufficient in most bodies for a shock to propel them directly away from the earth's surface. A spooky noise or an adversary's signature sound will induce motion upward, usually to the cradle of a chandelier, a treetop, or the crest of a flagpole. The feet of a character who is running or the wheels of a speeding auto need never touch the ground, especially when in flight.

**Cartoon Law VI:** *As speed increases, objects can be in several places at once.*

This is particularly true of tooth-and-claw fights, in which a character's head may be glimpsed emerging from the cloud of altercation at several places simultaneously. This effect is common as well among bodies that are spinning or being throttled. A 'wacky' character has the option of self-replication only at manic high speeds and may ricochet off walls to achieve the velocity required.

**Cartoon Law VII:** *Certain bodies can pass through solid walls painted to resemble tunnel entrances; others cannot.*

This *trompe l'oeil* inconsistency has baffled generations, but at least it is known that whoever paints an entrance on a wall's surface to trick an opponent will be unable to pursue him into this theoretical space. The painter is flattened against the wall when he

(Continued on page 10)

## HAS Financial Report as of September 15, 2004

Initial Balance: ..... \$5,293.96

### Receipts:

Astronomy Payment .....	58.00
Dues Received.....	158.00
Donations .....	5.00
S&T Payments.....	32.95

Total Income: ..... **\$253.95**

### Expenses:

Astronews.....	137.90
Magazine Subscriptions .....	156.85
Postage .....	7.69
Refreshments.....	5.96

Total Expenses: ..... **\$322.20**

Final Balance ..... **\$5,330.35**

We had six new members join the club this month. They are **Nathan** and **Nessie Shores**; **Michael** and **Lynn Harris**; **Fred** and **Claire Dauer**. Many thanks to **Diane Kellett** for her generous donation and to those renewing their membership during the month. Clear skies to all!

(Continued from page 9)  
attempts to follow into the painting.  
This is ultimately a problem of art, not  
of science.

**Cartoon Law VIII:** *Any violent rearrangement of feline matter is impermanent.*

Cartoon cats possess even more deaths than the traditional nine lives might comfortably afford. They can be

decimated, spliced, splayed, accordion-pleated, spindled, or disassembled, but they cannot be destroyed. After a few moments of blinking self pity, they reinflate, elongate, snap back, or solidify.

Corollary: A cat will assume the shape of its container.

**Cartoon Law IX:** *Everything falls faster than an anvil.*

**Space Weather** (*Continued from page 6*) for EO-1 was just to “test drive” this next-generation Hyperion sensor and other cutting-edge satellite technologies, so that future satellites could use the technologies without the risk of flying them for the first time. It was never meant to be a science data-gathering mission.

But it has become one. “We were the only hyperspectral sensor flying in space, so it was advantageous to keep us up there,” says Dr. Thomas Brakke, EO-1 Mission Deputy Scientist at NASA’s Goddard Space Flight Center.

Now, almost three years after it was scheduled to be de-orbited, EO-1

is still collecting valuable data about our planet’s natural ecosystems. Scientists have begun more than a dozen environmental studies to take advantage of EO-1’s extended mission. Topics range from mapping harmful invasive plant species to documenting the impacts of cattle grazing in Argentina to monitoring bush fires in Australia. Not bad for a satellite in retirement.

Read about EO1 at: [eo1.gsfc.nasa.gov](http://eo1.gsfc.nasa.gov). See sample EO-1 images at <http://eo1.usgs.gov/samples.php>. Budding young astronomers can learn more at [spaceplace.nasa.gov/EO1\\_1.htm](http://spaceplace.nasa.gov/EO1_1.htm).

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

**Blair Award** (*Continued from page 1*) are also the proud owners of at least three **Barry Peckham** built **LiteBox** telescopes which are periodically pictured in various astronomy publications.

Jane recently completed five years as president of the Astronomical Association of Northern California before accepting a job as Senior Outreach Specialist for the Cassini Program at NASA’s Jet Propulsion Laboratory. But she is best-known as a go-getting perpetual motion source of astronomical energy.

Jane can usually be found at a star party helping someone collimate their telescope, or surrounded by dry ice, buckets, and kids forming comets in a classroom. Or flying around the world counting meteors as part of the 1998 - 2002 NASA Leonid Multi-instrument aircraft campaign. Or perhaps pouring a pitch lap in a telescope class.

Jane has completed six of the

Astronomical League’s observing award programs - the *Sunspotter*, *Messier*, *Messier Binocular*, *Southern Sky binocular*, *Caldwell* and *Herschel 400* programs, and is currently working on the *Galaxy Cluster* program.

When not observing, giving talks, or making comets, Jane publishes articles in amateur astronomy club newsletters and in *Sky and Telescope* and *Amateur Astronomy* magazines. Her astronomical sketches have been published in *Astronomy Magazine*. Look for her article in the new *Night Sky* magazine from *Sky and Telescope* in mid-2004.

In her acceptance, Jane thanked the Sidewalk Astronomers and **John Dobson** for introducing her to the world of amateur astronomy, saying, “Every day he inspires me to ask a question, answer a question, or take my telescope out on a local sidewalk and share the wonder of the universe with others. Thanks, John!”

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



Former HAS President Stephanie Choquette and her husband Bastien welcome future amateur astronomer Gabriel Kalea Martel

Place stamp here. Post Office will not deliver mail without proper postage