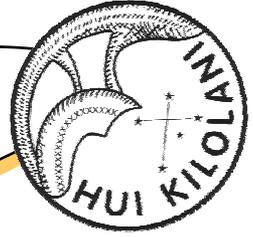


The Astronews



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The Electronic Telescope

Ron Paul Smith

Some time ago, I wrote an article for the Astronews about my then top of the line Sony DSC717 digital camera. It has since been superseded by superior digital cameras but is still highly regarded by astrophotographers. There are numerous Sony accessories for this camera, including teleconverter and wide-angle lenses. Think of the telephoto lens extender as and objective mounted Barlow lens for a telescope. In this case the telescope is the 190mm Zeiss lens on my camera. The “hunk of glass” (as fast f1.2, or heavy lenses are called in the trade) are usually quite expensive, as was this lens. But I saw them on sale at 50% off and bought one. I now have the equivalent of a 380mm telephoto lens on my camera.

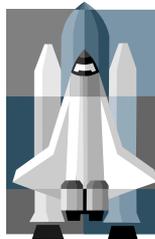
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Upcoming Star Parties

Public Party	Apr 30	Dillingham
Club Party	May 7	Dillingham
Public Party	May 14	Kahala/Waikele
Public Party	May 28	Dillingham
Club Party	Jun 4	Dillingham
Public Party	Jun 11	Kahala/Waikele



Upcoming Events:

- The next meeting is at 7:30 p.m. on Tuesday, May 3rd at the Bishop Museum.
- Bishop Museum's next planetarium show (with **Sam Rhoads**) is on Friday, May 6th.

President's Message

May should see the first shuttle launch since the Columbia broke apart on re-entry in 2003. The new head of NASA, Michael Griffin, has said that after a couple of successful shuttle flights he may reconsider a mission to repair the Hubble Space Telescope.

The current plan is to send shuttles only to the International Space Station (ISS) and only to fly the shuttles long enough to complete the parts of the ISS for which the U.S. has signed international agreements. Then the shuttles would be retired.

The argument is based on safety considerations. If a shuttle is damaged on take-off (as was the Columbia), the damage could be detected at the ISS, and the crew could wait there while another shuttle is prepped and launched on an emergency rescue mission. A shuttle launched to service Hubble would not be able to reach the ISS because the orbits are so different

Another argument against repairing the Hubble is economic. Shuttle flights are very expensive. A next-generation space telescope will probably be launched within a decade, and Hubble probably still has a few good years before it becomes unusable.

I'm betting that the mood will change once the shuttle is flying routinely again. If everything runs smoothly, and no significant damage is found on any flight, repairing Hubble won't seem as risky as it does now. Hubble is one of the most popular government programs of all time, and the policy makers are politicians, after all.

Money won't be the deciding factor. Anyone who spends hundreds or even thousands of their own dollars to obtain views of celestial objects than can be seen

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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 15th of each month. We are not responsible for unsolicited artwork.

Planets Close To the Moon

Times are Hawaii Standard Time

- May 1, 08h, M 4.7° SSE of Neptune (84° from sun in morning sky)
- May 2, 07h, M 2.5° SSE of Mars (71° from sun in morning sky)
- May 2, 22h, M 2.8° SSE of Uranus (63° from sun in morning sky)
- May 5, 21h, M 2.8° NNW of Mercury (25° from sun in morning sky)
- May 13, 05h, M 5.0° N of Saturn (60° from sun in evening sky)
- May 19, 12h, M 0.35° S of Jupiter (130° from sun in evening sky)
- May 28, 14h, M 4.5° SSE of Neptune (110° from sun in morning sky)
- May 30, 05h, M 2.6° SSE of Uranus (88° from sun in morning sky)
- May 30, 21h, M 0.51° S of Mars (78° from sun in morning sky)

Other Events of Interest

Times are Hawaii Standard Time

- May 7, 20:48h, Moon New
- May 8, 06h, Ceres at Opposition
- May 15, Mars 1.1° SSE of Uranus (74o from sun in morning sky)
- May 23, 10:20h, Moon Full
- May 23, 20h, Moon 0.80° N of Antares (172° from sun in midnight sky)

Planets in May

<p> Mercury</p> <p>will be visible in the east just before sunrise during the first 10 days of May.</p>	<p> Venus</p> <p>still close to the sun, will appear very low in the west just after sunset late in the month</p>	<p> Mars</p> <p>Rises after midnight and is best observed just before dawn in the SE. Mag - +0.5.</p>
<p> Jupiter</p> <p>one of the best months of the year to observe the giant planet. It will be near the zenith an hour or two before midnight.</p>	<p> Saturn</p> <p>still visible for about three hours after sunset in the southwest.</p>	<p> Uranus</p> <p>Rises after midnight—will be better placed for viewing later in the year.</p>
<p> Neptune</p> <p>Rises about 2:30 am – can be viewed just before dawn</p>		<p> Pluto</p> <p>Rises about 9:pm. Can be viewed with difficulty after 11:00 pm. Mag. +13.8.</p>

The general membership meeting of the Hawaiian Astronomical Society was called to order at 7:35 p.m. by Chris Peterson. There were 27 members and 2 visitors present. Chris briefly explained that Dr. Karen Meech of IFA was not able to be with us due to a scheduling conflict, however members would be able to attend a talk at the Planetary Data Center, POST 544 on April 26 at 7:30

Old Business

Upcoming Calendar Events in April - ... State Technology and Science Fair - April 5 & 6 - Judging for our agency to be done by Jim M., Gretchen W., and Paul L. Tuesday afternoon., Awards presented by Gretchen W. Wednesday, afternoon. Bishop Museum - April 9th (Saturday)

Mall. We will be found on the 2nd Floor outside Barnes & Noble. Our regularly scheduled Kahala Star Party will be held later that evening.

PST - Solar telescope has been received. Rental for the scope will be \$20 for a 2 week rental. Those renting will have to sign rental agreement , i.e., replacement/repair costs and postage.

Molokai Trip - Trip is not officially sponsored by the club, merely individuals from the club who are participating in the trip to the outer islands. Club is not underwriting the trip due to liability concerns.

New Business

Astronews Membership Listing Names and addresses will be posted in the June edition, Those who do not

want names posted will need to contact Jim M. Light Shielding for Highway Lighting at Dillingham Field - Foliage has been cut down along highway next to Dillingham Field. Lights opposite viewing site are glaring. HAS



Family Science Night. Will be covered by Forrest Luke and his sign-up crew. Same night as the Dillingham Public Star Party. IFA Open House - will be Sunday, April 10, from 11 am to 4 pm. Astronomy Day - Saturday April 16 club members will introduce the public to the daytime sky at Kahala

will be requesting that the State shield lights.

School Star Parties Forrest Luke reports that there are seven school star parties for April.

Night Sky Network- John Gallagher showed a brief Hubble 2004 CD. Planetary Data Center Talk - Last

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Increasing twilight in the northern hemisphere hampers observations, but the major shower, the Eta Aquarids, benefits from a waning Moon thanks to Zena.

Thursday the 5th, the **Eta Aquarids**. Radiant 22h32m-01 deg.

This shower may produce numbers near 40 meters an hour. The major problem is the radiant is in the little "Y" shaped "Water Jar" asterism which rises about the beginning of twilight, but since we are near the equator we get a better chance to see meteors from this shower. We get about two hours before the twilight is bothersome. This year's rates may show an increase as the real maximum may be in 2008-2010 as the periodicity may be somewhat tied to Jupiter's 12 year orbit.

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

President's Report (Continued from page 2)

in greater detail for free in books or on the Internet knows what I'm talking about. Money is not the proper measure of value for everything. I think most Americans agree that Hubble is worth saving.

Chris

Minutes (Continued from page 4)

month, Toby Owen who spoke at length on the Cassini mission to Titan. April 8, the center will host Peter McGuinnessmark.

Donation - John Gallagher spoke briefly about the recent donation to the club of aa Meade Model 4504 4.5" (114 mm) Equatorial Reflecting Telescope w/Starfinder controller by Art and Betty Joao. Starfinder is inoperable. The donation will be auctioned off at the May meeting, as is and with instructions on how to fix it or get new parts.

Solicitations and Ads in the Astronews Chris Peterson reported that a Robert Clarke of Virginia has contacted Chris in hopes of soliciting business for his lens making supplies. Discussion ensued regarding advertisements for astronomy related supplies in the Astronews. It was decided that such ads were in line with club policy.

Roving Reporters Return - Joanne Bogan and John Sandor have returned from the South Pacific Star Party. They reported about the goings on and their adventures in the outback.

ipod & Podcasting - Paul Lawler gave a visual demonstration of podcasting and its possible uses for amateur astronomers and other interested parties.

Beginner's Topic - Barry gave a short talk about the recent May issue of *Sky & Tel* which reviewed a new scope design by Meade that costs about \$1,000. Barry asked (as did *Sky & Tel*), who was this scope best suited for? The general membership meeting adjourned at 9:05 p.m. Refreshments were served. Joanne Bogan conducted the Planetarium show for members and visitors.

Respectfully Submitted,
Gretchen West

Electronic Telescope (Cont. from page 1)

However, the lens itself is merely an adjunct to the evolution of my concept of an (opto) electronic telescope. Imagine a 1000mm f.l. telescope with a built-in digital camera that you could pack in a carry-on suitcase. Televue has recently marketed a 60mm aperture OTA specifically for portability. The *e-scope* would accept normal optical eyepieces, as well as plug-in electronic eyepieces (i.e., high pixel content viewfinders that are used on camcorders). What would make the unit stand out would be the ability of the built in camera (with Peltier effect CCD chip cooler) to stack stellar images, similar to the CCD cameras used on telescopes today. No laptop or PC



would be needed, but could be used if desired. A tiny portable printer could be included in the carry-on. Today only one camera has the ability to stack images—Sony's \$5000 miniature Qualia camera. The future beckons!



Monochrome Sun at 180mm zoom telephoto



Monochrome Sun at 380mm (1.7x teleconverter)



Teleconverter image at 5x (color corrected)



Teleconverter image at 10x (color corrected)

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:

12 May 2005	Webbling Elementary (Aiea)
13 May 2005	Lanakila Elementary
27 May 2005	Kipapa Elementary
27 Jun 2005	Camp Erdman - MDA (some wheelchairs)
03 July 2005	Deep Impact Night (Bishop Museum)

Treasurer's Report

by Jim MacDonald

HAS Financial Report as of March 15, 2005

Initial Balance:.....	\$4,605.18
Receipts:	
Astronomy Payment.....	29.00
Deposit—telescope	20.00
Donations	5.05
Dues Received.....	98.00
S&T Payments	98.85
Telescope Fee.....	20.00
Reimbursement of Bank error	25.50
Total Income:	\$296.40
Expenses:	
Astronews	155.40
Award for Science Fair	50.00
Magazine Subscriptions	280.85
Postage	3.95
Refreshments.....	8.61
Total Expenses:	\$498.81
Ending Balance:.....	\$4,402.77

The club welcomes six new members this month. They include **John, Jane,** and **Emily Hinrichs**; plus **Robert Black** and **Steve and Libby Stoddard**. This latter group being from San Carlos, California. In addition, many thanks to those re-newing their membership and to Scott Schneeweis for his donation. Clear skies to all!



The Eagle Nebula

Credit: NASA, ESA, and The Hubble Heritage Team (STScI/AURA)

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