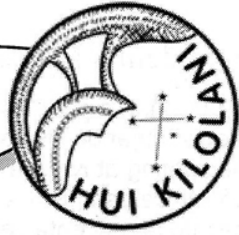


The Astronews



Volume 51, Issue 2

February 2003

www.hawastsoc.org

Astronomy Swap Meet

Jim MacDonald

Our long sought after club swap meet is finally taking shape. We have desperately searched for a location, but without much luck. Finally, at our last board meeting it was suggested that we use one of our meeting dates to hold the swap meet rather than a regular meeting.

So, here is the plan. The April meeting which falls on the 1st (and No!, this is no April Fools' joke) will be dedicated to holding a swap meet. We expect to be in the big white tent (AKA: *Hale Kea*) where there is lots of room to set up tables to allow members to display the gear they want to sell.

It is suggested that you look

(Continued on page 7)

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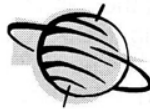
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Upcoming Events:

- The next meeting is 7:30 on Mar. 4th at Bishop Museum
- Sam Rhodes next Planetarium show on Mon. Mar. 3rd. Hanauma Bay shows have been cancelled until further notice.

Upcoming Star Parties

| | | |
|---------------------|----------------|--------------------|
| Club Party | Feb. 1 | Dillingham |
| Public Party | Feb. 8 | Kahala Park |
| Public Party | Feb. 22 | Dillingham |
| Club Party | Mar. 1 | Dillingham |
| Public Party | Mar. 8 | Kahala Park |
| Club Party | Mar. 1 | Dillingham |



President's Message

We're off to a good start in 2003. The "powers that be" have agreed to shield the lighting at Kahala Community Park. Now if we can just translate that promise into an acceptable reality, we will have scored a significant victory for dark skies in Honolulu. Thanks to VP Barry Peckham for his persistence. With the precedent set, and the pump primed, perhaps we can move forward and protect more of our night skies.

As mentioned at the January meeting, the Board of Directors has come up with some ideas for special meetings, such as a swap meet or a discussion of observing accessories. In a future issue of Astronews, I'll provide a more complete list as well as a questionnaire to get a better feeling for the wishes of the club membership. Members, this is *your* club. If you have suggestions for other meeting topics or activities that you'd like to see take place, please let me or another officer know.

If you get this issue in time and wish to attend the next Board meeting, it will be held at the Planetary Data Center at the University of Hawaii on Sunday, January 26, at 4:00 p.m. Contact me if you need directions.

As also mentioned at the January meeting, a Mr. John Long, a B.A.A. Solar observer in England, will be visiting Honolulu from March 3rd to 5th and would like to observe through a telescope while he is here. If you are able and willing to help him, you may contact him at <john@the-longs.co.uk>.

Chris

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Planets Close to the Moon

Times are Hawaii Standard Time









- Feb 2, 06h, M 4.3° SSE of Uranus
(15° from sun in evening sky)
Feb 11, 16h, M 2.6° N of Saturn
(119° from sun in evening sky)
Feb 15, 10h, M 3.7° SSE of Jupiter
(164° from sun in evening sky)
Feb 24, 18h, M 1.9° S of Mars
(71° from sun in morning sky)
Feb 27, 02h, M 5.1° S of Venus
(42° from sun in morning sky)
Feb 28, 07h, M 4.7° SSE of Neptune
(28° from sun in morning sky)

Other Events of Interest

Times are Hawaii Standard Time

- Feb 1, 00:50h, New Moon
Feb 1, 23h, Jupiter at Opposition
Feb 3, 15h, Mercury at greatest elongation
(25.3° west of sun in morning sky)
Feb 16, 13:52h, Full Moon
Feb 17, 12h, Uranus in conjunction with sun,
passes into morning sky.
Feb 20, 20h, Mercury 1.5° SSE of Neptune
(21° from sun in morning sky)

The Planets in February

| | | |
|---|---|--|
|  Mercury Mercury appears in the morning sky early in Feb, reaching greatest elongation on Feb 3. |  Venus Venus dominates the morning sky, still about 40° from the sun, with a magnitude of -4.2. |  Mars Mars is beginning to brighten and rise higher in the morning sky, reaching a mag. of +1.0. |
|  Jupiter Jupiter is at opposition on Feb, 1 and is in the sky all night. Mag. -2.6, Diam. 45.3". |  Saturn Saturn is past it best, but is still a well placed for viewing in the evening. Mag. -0.1. Diam, 19.4". |  Uranus Uranus is at conjunction with the sun this month and is too close to the sun to be viewed. |
|  Neptune Neptune is still too close to the sun to view this month. | |  Pluto Pluto is visible in the morning sky just before dawn, but will be better viewed later in the year. |

School Star Parties

It's that time of year again, and School Star Parties are being coordinated by Forrest Luke. If you are contacted for a school star party, please have the school contact Forrest directly at 623-9830 or <lukef003@hawaii.rr.com>.

As a reminder, upcoming scheduled school star parties are:

- 6 Feb 2003 Campbell High School**
- 6 Mar 2003 Helemano School (4th grade)**
- 7 Mar 2003 Pearl Harbor Elementary**
- 11 Mar 2003 Ala Wai Elementary**
- 4 Apr 2003 Lanakila Elementary**
- 7 Apr 2003 Voyager School (Kakaako)**
- 25 Apr 2003 Niu Valley Middle School**

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.

Meeting Minutes

by Gretchen West

The January 7, 2003 meeting was called to order by President Chris Petersen at 7:35 p.m. 30 members and 3 visitors were in attendance. Jim MacDonald presented information regarding the long awaited swap meet, and also informed the membership that liability insurance for HAS has changed, as of January 5, 2003. The new provider is Burlington Insurance, as our old insurance company will no longer be providing coverage

in the state of Hawaii. Coverage will cost \$650.00 per year and will cover HAS sponsored Dillingham star parties, star parties at Kahala, and school star parties.

Forrest Luke asked for volunteers to fill the few remaining vacant slot for the January 10th star party at Kamehameha School and the January 31st star party at Iroquois Point (on station). Forrest has maps and detailed directions to guide helpers to these events. Please contact Forrest for further details. In addition, it has

been suggested that one member of the club briefly address school groups to go over viewing and telescope etiquette, seeing conditions, possible night time objects and constellations, and the realities of light pollution on viewing our night time skies.

Raymond Brust reiterated his plea for any and all comments regarding the observatories atop Mauna Keato to the University and the advisorycommittee. These comments need to be delivered to the U.H. by Friday, Jan. 10, 2003. Any e-mails can be routed through Ray Brust <rwbrusstjr@att.net>.

Vice-President Barry Peckham informed the club that the city will be shielding the lights at Kahala Park and that the East-Oahu Kahala Star

Parties will be continuing with HAS co-sponsoring these events. Special kudos go to Steve Huffman for his extra efforts in pursuing neighborhood petitions, and writing letters, and

(Continued on page 5)

The HAS President's list in the January Astronews inadvertently left out the years 1989-90. The correct list is reprinted fully below:

The HAS Presidents

| | |
|---------------------------|-----------------------|
| Bob Terry | 1950-1953 |
| David M. Dunn..... | 1954-1955 |
| Dr. Earle G. Linsley..... | 1957-1959 |
| Perry C. Cornutte..... | 1960 |
| Robert Jack..... | Jan.-Oct. 1961 |
| Mike Morrow ... | Nov. 1961-Jun. 1962 |
| George Bunton | Jul.-Dec. 1962 |
| Robert Britton..... | 1963 |
| Robert Lanterman..... | 1964 |
| James Banning..... | 1965 |
| Will Kyselka..... | 1966 |
| Mike Morrow | 1967-1968 |
| Sam Fisk..... | 1969 |
| Willis Moore | 1970 |
| George Bunton | 1971 |
| Raymon Ayer | 1972 |
| Mike Morrow | 1973 |
| Raymon Ayer ... | Jan. 1974 - Jun. 1979 |
| Bob Terry | Jul.-Dec. 1979 |
| Mike Morrow | 1880 |
| Ray Fabré | 1981-May 1987 |
| Bryant Waters..... | Jun. 1987-1988 |
| Wayne Christensen..... | 1989 |
| Ray Fabré | 1990 |
| Mike Kaczmariski | 1991 |
| Phyllis Eide | Jan.-Aug. 1992 |
| Mike Morrow | Sep.-Dec. 1992 |
| Peter Galloway | 1993 |
| Ray Fabré | 1994-1995 |
| Barry Peckham | 1996 |
| Peter Bessenbruch | 1997-1998 |
| Cliff Jenkins | 1999 |
| John Sandor..... | 2000 |
| Stephanie Choquette..... | 2001 |
| Gretchen West..... | 2002 |
| Chris Peterson | 2003 |

Meteor Log

Watch for the return of Mike Morrow's (yes, the very same) popular *Meteor Log* in next month's issue!

Minutes (Continued from page 4)

to Jim MacDonald for inviting City Parks and Recreation Director, Mr. Balfour to the December 14th event. Thanks to everyone who helped out. Jim DeLuze suggested submissions to Sky & Tel or Astronomy magazines and International Dark Sky Association to publicize the cooperative efforts of the club and the city in solving this problem.

Gretchen West was presented with certificate for successfully documenting finds of all 110 Messier objects. Others who have completed the list are urged to contact the HAS Board.

Paul Lawler presented a poster of the night sky he had received. He indicated that the realistic star chart for any given date are available through www.indignonight.com. Unframed, framed and posters are available for a variety of prices.

Astronomical high points for 2002 were shared by members.

Mike Shannahan indicates that a new program will begin at the Planetarium touching on the Hawaiian spiritual element relating to the Mauna Kea area. Mike will be booking the most advantageous venue for our future meetings and posting signs on meeting nights.

Forrest Luke urged the club to advertize the club more and to put a question into our membership form as to where people heard about the club.

The January meeting of the Hawaiian Astronomical Society adjourned at 8:46 p.m. for refreshments. There was an aloha star show with Stephanie Choquette in the Planetarium from 9:00p.m. until 9:40 p.m.

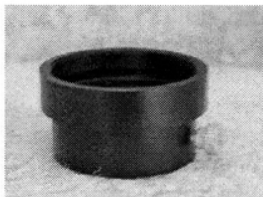
The Little Scope that Could

by Ron Paul Smith

OK, you don't have the big bucks to buy a top-of-the-line telescope. In fact, you can't afford to buy an astronomical telescope at all, or so you think. It's true that you don't need a scope to learn astronomy. Helping you to do that is what H.A.S. monthly meetings, planetarium shows and star parties are all about anyway.

Eventually though, most amateur astronomers will want a telescope. Surprisingly, you may have had a potential telescope sitting and gathering dust in your family closet. I'm referring to that old, heavy SLR (single lens reflex) camera and lenses that were popular in the 70's and 80's. They have largely been replaced by lightweight point-and-shoot 35mm and digital cameras. These SLRs often had zoom telephoto lenses in addition to regular and wide angle lenses.

For example, I have a 75-250mm f4.5 Soligor zoom lens made for Canon mounts. It is about 60mm aperture, is fully multicoated, quite solid and heavily built, and virtually fits in the palm of my hand. All it lacks is an eyepiece to turn it into a fine miniature telescope. Just such an eyepiece is available from any photography equipment dealer. It is called a



“camera lens roof prism eyepiece adapter.” It is a 5x fixed-lens eyepiece, correct-image (daytime terrestrial use) unit that comes in Nikon,



Canon (except EOS) and Pentax screw type mounts. It turns your normal 50mm camera lens into a 5x monocular and my 250mm telephoto lens into a 25x telescope. It retails for about \$50-60.

Better yet, if you have a telephoto lens with the old T-mount, you can order an inexpensive (\$20-25) T-1.25" adapter tube from any of several dealers. This permits you to use standard 1.25" eyepieces, to give the observer a full range of lens powers. There are even 90° star diagonals available with T-mount flanges. And now you have the “little telescope that could.” Wonderful observing!

Note: If you have a standard 2x tele-converter for your lens mount, you've doubled your lens power and focal ratio!

Editor's note: In the January issue of Sky & Telescope, there is an ad for a company called "Hutech" which sells 50mm f5 "pocket sized telescopes" for \$189. Now you can build your own and save a bundle!

Equipment for Sale

| Equipment | Condition | Price |
|----------------------------|--------------|-------|
| 80mm ST Ref by Celestron | *excellent* | \$125 |
| GE mount (free with scope) | *functional* | free |
| Orion Scope soft case | *excellent* | \$ 25 |
| Tele-Vue 90* Star Diagonal | *brand new* | \$ 50 |
| Orion 90* Prism Diagonal | *excellent* | \$ 25 |
| Celestron Bino Adapter | *brand new* | \$ 10 |
| Orion 26mm Plossl | *brand new* | \$ 20 |
| Orion 15mm Plossl | *excellent* | \$ 20 |
| Orion 32mm Plossl | *excellent* | \$ 25 |

Whoever is interested...\$300 for EVERYTHING!!
Call Don at 833-2314

Swap Meet (Continued from page 1)
through your equipment early and decide what you no longer want or need; 1) Determine your asking price (Astromart and e-bay can be a big help); 2) Identify data that a prospective buyer may want to know (e.g. focal length, field of view, etc.); 3) Mark your items with the price, etc.; 4) bring them to the April meeting, and become a super salesman.

Also, don't forget to bring a little cash in case you see something you can't live without. Let's make this a fun event and perhaps we can do it again in the future.

Note: All transactions will be between individuals. There will be no club involvement with any issues (e.g., transaction settlement or dispute resolution).

Equipment for Sale

Meade ETX-125 (5") Maksutov-Cassegrain Telescope, Field Tripod, Autostar for "Go To" operation, 26mm Meade Super Plossl 1.25" eyepiece, Erecting diagonal (45-Degree), Orion Dew Zapper, 12V, Hard sided foam-lined carrying case, Original selling price \$895 + \$150 (Autostar) + \$200 Tripod + \$150 Hard sided case + \$45 Dew Zapper + \$40.00 Shipping - Sale price \$750 or best offer. All Items like-new condition.

Meade 2" Diagonal for Schmidt-Cassegrain telescope. Includes 1.25" adapter Original price \$100, sell for \$70.

Contact Jim MacDonald at jim.macd@verizon.net

(Continued from page 8)

(17.2" x 12.2" x 5.5"). This foam insert is not listed in their catalog, but it is available. The stock number is 05979 and it sells for around \$10.00. The die-cut segments are half-inch

squares. No neat round holes for your eyepieces, but I believe it's what the original case came with. For what it's worth, I also saw a smaller foam insert at The Container Store for \$6.99. That stock number is 65045 and the dimen-

Little Green Fundraisers

by Barry Peckham

As V.P. of the club I am responsible for the content of the meetings and feel a need to summarize the talk given by Jeff Bell during 45 minutes worth of the December meeting. There was, as I looked around the room, a problem with audibility. Since I was only a few feet from Jeff, I got to hear most of what he said. Please note that Jeff has not approved this account of his presentation. He insisted that what he had to say couldn't possibly be covered in less than 50 minutes.

Jeff's thesis: current astronomical searches for extra-solar planets have produced valuable data that help us to understand planetary possibilities around other stars. Whereas the public is teased by the media with the possibility of an extra-solar Earth, Jeff sees the data as discouraging news for those who delight in the possibility of extra terrestrial life. He listed at least 6 reasons for his conclusion, among them:

Most star systems are poor in the metals required for making planets like Earth. Only 2nd and 3rd generation stars may qualify for harboring planets with life-supporting chemistry.

Close binary systems and stars with close-orbiting "hot Jupiters" tend

to rule out rocky planets like Earth in the zone of habitation (where water can exist in liquid form). The reason is gravitational turbulence. The search for planets shows that giant planets in close orbits around their stars are very common.

Stars get hotter and brighter with age (to a point) and, over billions of years, this increase effectively narrows the habitable zone where a life-harboring planet could exist. It is unlikely Mars ever had life, because it was formerly much colder than it is now. Even Earth was much colder than it is now, and has relatively recently warmed up enough to harbor complex life.

The search equipment was designed to detect Jupiter-sized planets, and yet no planets as small as Jupiter have been detected. The apparent rarity of Jupiters is bad news for the stability potential of inner star systems.

Both the scientific community and the press are encouraged to skew reports about extra-solar planets so that it seems as though astronomers are getting ever closer to finding another Earth out there. The press does this because of the public's interest in

(Continued on page 10)

Treasurer's Report

by Jim MacDonald

HAS Financial Report as of December 15, 2002

| | |
|-------------------------------------|------------|
| Initial Balance: | \$6,896.77 |
| Receipts: | |
| Dues Received | 181.00 |
| <i>Astronomy</i> Payments | 149.75 |
| <i>Sky & Telescope</i> Payments | 174.00 |
| Polo Shirt Orders | 25.00 |
| Donations | 25.00 |
| Total Income: | \$554.75 |
| Expenses: | |
| Astronews | 151.39 |
| Liability Insurance | 805.42 |
| Magazine Subscription Payment | 591.40 |
| Polo Shirt Payment | 252.08 |
| T-Shirts sales excise tax | 15.00 |
| Refreshments | 14.96 |
| Total Expenses: | \$1,830.25 |
| Final Balance | \$5,621.27 |

Since last month, we have had two families join HAS. They include **Gary King**, along with **Donna, Joshua, and John**; **Laurie Acohido** along with **Alexis and Buddy**. It is also noted that **Jim Bedient** has re-joined HAS. Welcome to the club and clear skies to the many members renewing their membership during the month! We would also like to thank **Tsugito Nishimura, Ivan Awa, Diane Kellett, Barry Peckham** and **Ron P. Smith** for their generous donations over the past two months.

Fund Raisers (Continued from page 9)
alien life forms. The astronomers do this because their funding comes from that same public interest. Valuable scientific research is being funded by folks who think we are about to make contact with aliens. Example: the hugely expensive next generation space telescope, designed so as to directly image Earth-sized planets around stars as far away as 100 light years. Think what else it will be able to image!

Jeff Bell's conclusion seemed to

be that astronomical research is doing a fine job with the resources at hand, but must continue to fool the public about the nature of its work. Just as sex sells automobiles, so too do little green men fund the big bucks astronomy projects. So, don't bite the hand that feeds you, and don't believe all you read in the papers!

Lastly, speak up when you have something to say, and summarize, summarize, summarize!

Aloha,
Barry

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Aloha,
Barry

Just below the brightest star in the sky, Sirius, is the SECOND brightest star, Canopus, 30 degrees and almost exactly south of Mizram, Sirius's announcing star. Nearly 53 degrees south of the celestial equator, and the great luminary of Carina, the Keel, Canopus is not visible from latitudes above 37 degrees north, which excludes all of Canada and most of the continental United States (though from the Gulf Coast to southern Arizona the two make a grand winter sight, as they do in all the summertime southern hemisphere).

Unlike most stars, the name refers to a person, the helmsman of Menelaus of Alexandria (a contemporary of Ptolemy). Canopus was originally the Alpha star of the ancient constellation *Argo*, the ship on which Jason sailed to find the golden fleece. In more modern times, huge *Argo* was broken into three parts, *Carina* (the Keel), *Puppis* (the Stern), and *Vela* (the Sails...pronounced "vee'-la"). Canopus fell into Carina, and is therefore now Alpha Carinae (since the other stars kept their original Bayer designations, Vela and Puppis have no α star).

Shining at -0.72 magnitude, Canopus appears about half as bright as its apparent celestial neighbor, Sirius. Physically, the two have nothing

to do with each other. Canopus, much the grander star, is much farther away and is a rare class "F" yellow-white (7800 Kelvin) supergiant. From its apparent brightness and distance of 313 light years, we calculate a luminosity 15,000 times that of the Sun. and 65 solar diameters (large enough to stretch three-fourths of the way across Mercury's orbit).

Canopus possesses an extremely hot magnetically heated "corona." The Sun's corona, a thin two-million Kelvin gas that extends far beyond the bright solar surface, is seen only during eclipse. Canopus's corona is some 10 times hotter and produces both observable X-rays and radio waves.

As a supergiant, Canopus has ceased hydrogen fusion in its core, and is in the process of dying, its luminosity suggesting a birth mass 8 or 9 times solar. It may once have been a red giant like Betelgeuse, or it may become one yet, its exact status unknown.

Not quite massive enough to explode, Canopus will eventually die as a massive white dwarf like Sirius-B. Most white dwarfs, the leavings of thermonuclear fusion, are made of carbon and oxygen. Canopus is massive enough that fusion reactions may proceed farther to produce a much rarer neon-oxygen white dwarf.

Notable Events

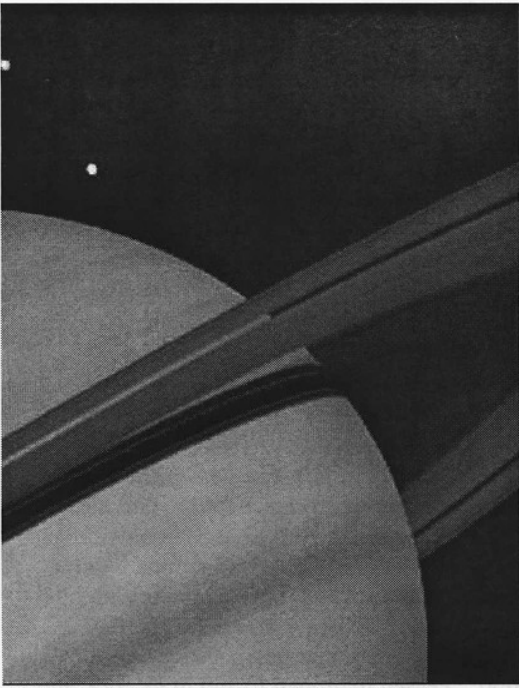
1) A new planet in another solar system @5,000 light years distant was identified recently.

2) A 40th satellite moon orbiting Jupiter was identified by a University of Hawaii astronomer in December 2002. To find further information on

planetary satellites check out International Astronomical Union or NASA's JPL Solar System Dynamics website.

3) Comet "Neat" recently seen, visually by HAS member within Great Square, heading for the sun where it is expected to grow to magnitude 3.

Hawaiian Astronomical Society
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