The Astronews

HUI KILOLANI

Volume 50, Issue 10

www.hawastsoc.org

October 2002

Star Party Chatter

by Jim MacDonald

Recent gatherings have been quite interesting. At our August outing at Kahala Park several members attempted to find the 'space rock' flying through our neighborhood. Known as 2002 NY40, this asteroid, discovered by LINEAR, was touted as being easily spotted in small telescopes or even binoculars. Talk about being overrated.

Several of us tried to see this object but without any success. ***Glenn Nanamori*** not only found it once he did so at least a half dozen times between each of the passing cloud banks. We'd all run to Glenn's scope see where his telrad was pointed to try and find it in our own scopes. No such luck. We then started lining up at Glenn's eyepiece

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Inside this issue:

Upcoming Star Parties

Club Party	**October 5**	**Dillingham**
Public Party	**October 12**	**Kahala Park**
Public Party	**October 26**	**Dillingham**
Club Party	**Nov. 2**	**Dillingham**
Public Party	**Nov. 9**	**Kahala Park**
Public Party	**Nov. 23**	**Dillingham**

Upcoming Events:

- The next meeting is 7:30 on Oct. 1 at Bishop Museum
- **Sam Rhodes** next Planetarium show on Mon. Oct. 7th. Hanauma Bay show will be on Oct. 14th. Gates will close at 7:30pm.

Farewell Letter

by Tom Bartlett

Dear Club Members I have gotten to know,

I will no longer be able to meet with all of you for star parties as I will be moving back to my home town in Indiana. My mother isn't doing well and she lives alone and since I'm her only child I feel a real need to move back and help her. Nonetheless, I can't tell you how wonderful it has been getting to know some of you and how good you made me feel as a new member.

I also can't thank you enough for supporting me in regards to my Nikon Binocular inventions...I'm still producing them and will be coming out with my own design made by the company who makes the Nikon products.

My prototype was suppose to arrive two months ago and I was going to ask you all to test it, but alas it appears it won't arrive until October (Hmmm... maybe I should make a trip out here just so all of you could be my star testers?)

I will keep you posted (I'm calling it the New Star Binocular Viewer) on its progress and when I will have it ready for the market...it will work in all three telescope systems without any added corrective lens of any kind...I think it will capture the market ...maybe?

Once again, thank you all so much for making me feel as if I were a part of the club...

You Have My Best Regards,

Tom Bartlett

Hawaiian Astronomical Society
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Planets Close to the Moon

Times are Hawaii Standard Time

Oct 1, 2307h, M 4.0° NNE of Jupiter
(57° from sun in morning sky)
Oct 4, 18h, M 4.0° NNE of Mars
(19° from sun in morning sky)
Oct 8, 06 h, M 9.0° NNE of Venus
(31° from sun in evening sky)
Oct 14, 06h, M 4.4° SSE of Neptune
(107° from sun in evening sky)
Oct 15, 15h, M 4.2° SSE of Uranus
(122° from sun in evening sky)
Oct 25, 22h, M 3.1° N of Saturn
(124° from sun in evening sky)
Oct 29, 14h, M 4.3° NNE of Jupiter
(80° from sun in morning sky)
Mercury is closer than 15° from the sun when near the moon in September.

Other Events of Interest

Times are Hawaii Standard Time

Oct 3, 10h, Moon 1.9° NNE of Vesta
(38° from sun in morning sky)
Oct 3, 21h, 1 Ceres at Opposition
Oct 6, 01:17h, New Moon
Oct 10, 03h, Mercury 2.8° ESE of Mars
(19° from sun in morning sky)
Oct 12, 21h, Mercury at greatest elongation
(18.1° West of the sun in morning sky)
Oct 20, 21:21h, Full Moon
Oct 31, 02h, Venus at Inferior Conjunction
(Passes into morning sky)

The Planets in October

Mercury
Mercury is visible in the morning sky early in the month, reaching greatest elongation on Oct 12.

Venus
Venus says goodbye to the evening sky in Oct, reaching inferior conj. Oct 31.

Mars
Mars appears in the morning sky, but is still far from the earth. Near Mercury on Oct 10.

Jupiter
Jupiter rises after midnight and is visible in the east before dawn.

Saturn
Saturn rises in mid evening and is now brighter than 0 magnitude.

Uranus
Uranus is in the westen sky after sunset in Capricornus. Mag +5.7

Neptune
Neptune is near Uranus in the western sky in early evening. Mag +7.8

Pluto
Pluto is in the evening sky in Ophiuchus but is getting too close to the sun for easy viewing..

Star Party Chatter
(Continued from page 1)

and sure enough, there was this little tiny speck moving along at a fast clip. It seemed to be most obvious when passing a star. The magnitude of this asteroid must have in the low teens. That sure would have been some pair of binoculars.

The members-only outings on the seventh of this month was great and included various new members including ***Steve Kennedy*** with his 12" Meade. Many folks were honing their skills at finding Messier objects and ***Paul Lawler*** had a question regarding M29. Another member disputed his claim to having found this open cluster in Cygnus and Paul was asking those around him to verify his finding. Everyone agreed that it was M29.

Our California members, ***Jane Houston Jones*** and ***Morris Jones*** (AKA ***Mojo***), put in an appearance with ***Barry Peckham***. Jane was in Hawaii celebrating a birthday (she is still young enough to admit having them) and began the evening by showing ***John Gallagher*** the faint comet Hoenig in the handle of Ursa Major. Later, at Barry's 15" LITEBOX, she located planets Uranus and Neptune. From there it was on to various other lesser known objects in the eastern and northern sky entertaining all who would take a look.

The most recent outing at Kahala was also quite interesting with a large crowd on hand. ***Steve Huffman*** appeared with his students from Sacred Hearts Academy, and ***Mark Renusch*** was there with students from St. Patrick's School. The students were happy to look at whatever any of us were viewing and asked excellent questions. They seemed to be armed with a laundry list of questions and showed a genuine interest. I assumed that each had to write a report on their experience and what they learned. At some point during the evening, I heard ***Stephanie Choquette*** ask if anyone knew the location of the planet Uranus. ***Glenn Nanamori*** overheard the question and said, "It's right here." With the front of her scope in hand he had the planet in view within five seconds. Glenn has the uncanny ability to find just about any object in the sky with apparently little effort.

If you have not been out under the stars recently, come join us. We have been having some fairly decent skies and the fellowship with members makes it all the more enjoyable. Dust off your scope and meet us at the next outing, a public star party at Dillingham on Saturday, September 28.

See you there, *Jim*

The Astronomer's Best Friend

by Ron Paul Smith

A dog is man's best friend. Diamonds are a girls best friend. So you're probably thinking that an astronomer's best friend must be his or her telescope. In my case, the astronomer's best friend is a machinist. In 1986 a letter of mine was published in Sky & Telescope regarding my discovery that 35mm camera lenses, say 50mm or even 90mm, worked just fine as wide field, low power eyepieces on an 8" F3 fast Newtonian that I owned at the time.

I immediately received a congratulatory note from advanced amateur astronomer, Lucian J. Kimble, the discoverer of "Kimble's Cascade," a star chain

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Minutes

by Chris Trusty

The meeting was called to order by the president, Gretchen West at 7:35 p.m. There were 48 in attendance including a teacher and four students from Maryknoll School. Gretchen thanked Mike Shanahan and Bishop Museum for the event held at Hanauma Bay during the Perseid meteor shower.

The club decided to go ahead and pay the $75 charge to have our logo set up to have embroidered on Polo style shirts. Forest Luke passed around a sign up sheet for a star party to be held on September 13 at Voyager School.

Chris Peterson donated a Meade 60 mm telescope with tripod. It was auctioned off to the highest bidder, Tom Piper for $10. Proceeds went to the club's treasury.

Barry Peckham gave a review of an article in a local magazine titled "Starry, Starry Night" The article attempted to point out the light pollution problems on Oahu, but still had a lot of wrong information, like suggest-

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Meteor Log—October 2002

by Mike Morrow

The shower of the month, the Orionids, could scarcely be worse-palced. Sporadic rates are good for northern observers.

Tuesday the 8th to Wednesday the 9th, the Draconids. Radiant 17h28m+54. This shower produces numbers from none to a few hundred and hour. If anything happens this year it willl be from 14h UT on the 8th to 07h UT on the 9th. The radiant is highest in the early evening.

Monday the 21st, the Oronids. Radiant 06h20m+27. Rates of 20 meteors per hour or less is about normal.

The Orionids are associated with Comet Halley. Recent video results found a single, simple radiant for this shower, though visual observers had previously supposed a larger, more complex one. One notable event comparable in strength occasionally happens about the 17-18 of October, however, the full Moon drowns out the shower.

If you are interested in observing Meteors contact Tom Giguere on Oahu at 672-6677
or write to: Mike Morrow, Meteor Group Hawaii, P.O. Box 6692, Ocean View, HI 96737
<halehoku@yahoo.com>

Mars Time (continued from last month) by Kevin S. Polk

November 22 (con't.)

While waiting to hear back from LMA, I caught sight of a 3-D schematic of the Lander whirling about on the wall screen. I counted 60 computers from where I sat, each far more powerful than all the computers that NASA owned at the time of Apollo. From mural-sized color plotters to wireless modems, the place was crammed with tech toys. I said as much to Greg. He said, "yeah, and very little know-how."

LMA had reconfigured the LIDAR and Microphone since the previous ORT (where we actually had received data). In their haste, they blew it; we'd receive no data this time. We negotiated a special "mini-ORT" for LIDAR and Microphone. Planning meetings were held 37 minutes later each day to match the Martian day. The next meeting was 3 a.m. Because we had no data to discuss, we were excused and left at midnight.

Imagine our surprise the next morning when we found our Sol 4 and 5 sequences deleted from the actual mission! New game: from now on, we will have to hustle at every science meeting, stretching 0.9 employees to get in the face of other, much larger instrument teams.

Tomorrow we dig into the results of lidar's mini-ORT. Ten days to go.

November 30

A fourth sweep-hand clock appeared on the wall of MVACS yesterday. The clocks read PST, MST, GMT... and now MLT: Mars Local Time for the landing site. Neat trick considering that the clocks typically use 60-cycle AC from the wall for timing. The MLT clock loses about a second and a half per minute to keep pace with the Red Planet.

We still don't have the data from our mini-ORT. Or actually we do, but it hasn't yet come to us through the Ground Data System, so we can't be sure we'll get it for real when MPL lands. In four days. Lou is raising hell with JPL over this. The Russians arrived Saturday. Our translator was attending classes, so I filled in. This meant everything from buying them an ethernet card (they had left theirs in Moscow), to configuring their e-mail in a strange variant of Windows with the menus in cyrillic and the help files in English.

Concurrently, project personnel trained me in editing instrument sequences for the spacecraft, had me rework sequences on Sol 3 and 2, had me verify that the new sequences did not interfere with LIDAR, and add our requests for supporting spacecraft data on the downlink. It was a chore to pull the Russians into these tasks where they were needed. They wanted their e-mail, and there were language difficulties.

Our translator was unavailable much of the day, and only materialized when all 6 tasks were coming to a head. Caught in the crossfire of overlapping discussions between myself, Sasha, and 7 other people, she had no prayer of facilitating. At one point she asked: "What is Sasha and Irena's work schedule?" I just stared back, as if she were still speaking Russian. She explained: "They want to buy some groceries. I should be with them. When will they be

done here?" I handed the problem to Lou as two project people pulled me away for another couple of crises. Two hours later we were done and had our supporting data streams: temperature at two places on the spacecraft, computed sun angle, quaternion.

Over dinner, a new web database guru from England was dissing the microphone over its poor calibration. When I explained that it wasn't a NASA instrument but a private effort with a $100K budget paid for by the members of TPS, he got excited, swore he would join, and minutes later was proudly talking about "our" microphone.

December 2

I went to bed last night with our Sol 2 and 3 uplink sequences in shambles, our data encountering corruption through the ground data system, and a whole host of open questions on data access and processing.

Today was better. Rested, we resolved all of our uplink and downlink issues, and figured out, more or less, how to access our live data and supporting spacecraft telemetry.

We may not record any Martian sounds on Sol 0 after all. The project left out a reset we requested months ago. This means that the first sounds back from Mars might be something stored in the Microphone's flash memory in late '98—probably someone talking over the roar of an air conditioning duct at Lockheed Martin. There is no way we can change the sequence. Sol 1 (Saturday) should be OK.

I finally got my "all access" MVACS badge today - these are tightly rationed. The support staff are certainly earning theirs. Joan, a grandmotherly receptionist who has been with us for two weeks, has been getting in at 7 a.m. and leaving well after 11 p.m. each night. Newly-hired guards are there when I get in and when I leave at night, with warm greetings and an eagerness to talk about the upcoming landing.

I'll probably fall asleep tonight with retinal echoes from a stand-up meeting this afternoon: I'm going over some ground data system issues with Sasha, Slava, and some project people. Behind the Russians are two larger-than-life copies of Slava speaking about LIDAR at a NASA press conference on the control room's big screen. The images are about 30 seconds out of sync with eachother. His hair and suit are dark gray. His gestures are short, confident. He's endured Russian winters, sent spacecraft to Venus and lasers to Mars. His rare smiles -- three of them flick briefly in unison -- are shy, delighted. Young. We'll talk again after the landing.

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How I Got Started in Astronomy

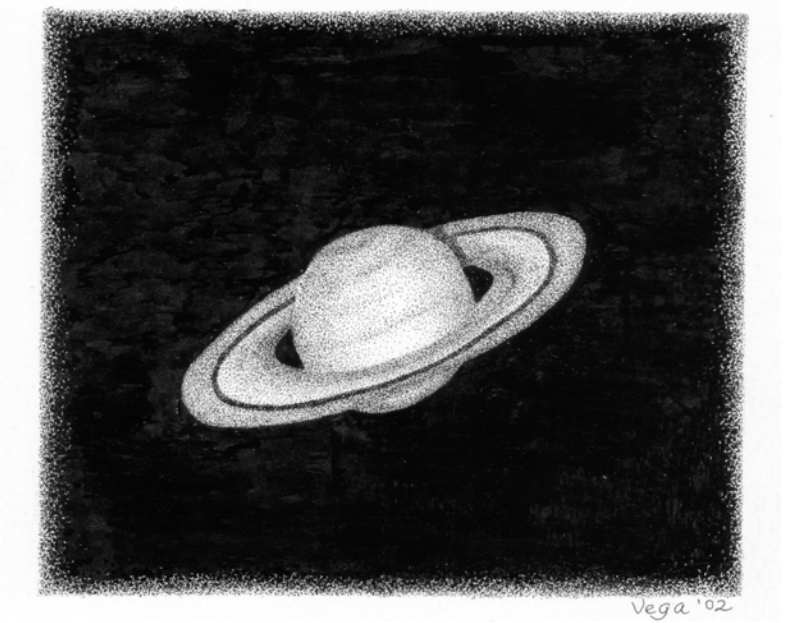
by Mark Renusch

The heavens—the lines of light that move so quickly between the stars and form our constellations, and give meaning to our bearings amid the fathomless sea of the universe, became my greatest friend when I was in the 6th grade in Warren, Michigan. I was a safety boy. Safety boys helped kids cross the street. I was posted out in Siberia, the furthermost corner in all of the school district. You didn't need a telescope to see who was jaywalking. I was always into biology and geology and history and then one day somebody introduced me to the writings of H.A. Rey. I'm not sure which book it was, as he had written two or so on the subject of the constellations by then in 1970. And the concept of the skies caught my fancy. Being alone in Siberia from 6:30 a.m. to 7:30 a.m. in the utterly freezing cold of Michigan, I had a lot of time to read. Back then when my eyesight was 20/20, I read while eating my cereal, I read while eating dinner, and I'm proud to report that my oldest boy Andrew reads while he eats at the table. I read H.A. Rey. Again and again. I memorized his astronomy books. This man had an immense imagination, and this is recorded in all his books.

I used to draw the constellations in my back yard while looking at the sky, with H.A. Rey by my side. I'd lie on my back and just gaze at the sky, drawing. I became really good. I also recorded all the meteor showers. My first telescope was from Sears. Magnification: 14,277x. It was a Christmas gift. I went out for four straight nights in the freezing cold and saw **nothing**. Little did I know then about thermal

Saturn (Pen & Ink)

Mayra Vega



cooling.

An aside: It's funny, because I once contacted Fred Schaff of Sky & Telescope and asked him where he got the maps for his Southern Sky Report, (i.e., who put the lines together to form the constellations), and he had no clue. He was amazed that I had connected the dots on my Tirion maps and laminated them for the field. But the minute he learned that I learned the stars from H.A. Rey, he chastised me. Still, he had no clue who put together the constellations on the very maps he writes about monthly. What a bozo.

Then I worked at the Oldsmobile plant building engines while going to Michigan State University. I was a very rich man. I bought a Meade 6" RFT. I remember taking that puppy out to the farms outside Lansing and it was remarkable! I'd build a fire some 200 yards away and when I got cold while viewing, I'd stick my boots in the fire until they smoked. Then I knew I was warm. Needless to

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Mars Time *(Continued from page 7)*

December 8

It hit me hard on the drive home last night. The mission's over. No signal from the main antenna. No signal from the UHF to Mars Global Surveyor. In PI David Paige's words: "it's dead, Jim." I fell asleep with a cold feeling in the pit of my stomach. For the first time in a month, I woke up exhausted.

Has NASA's *better, faster, cheaper* policy let us down? I can't believe the press is even asking this. The $1.5 Billion Mars Observer mission of 1992 took a decade to build -- and it still blew up. Let's not go back to that. For less than that amount, we got four attempted missions to Mars, and two successes (Pathfinder and MGS). What's the alternative, "worse, slower, more expensive?"

All of the TPS members I've asked tell me they want us to send another microphone to Mars as soon as possible. No one wants to quit the adventure now that they own a piece of it. Mars wins another round, but we'll be back!

Minutes *(Continued from page 5)*

ing star gazers go to Windward Oahu for best conditions. Barry discussed some of the common questions asked by the public at star parties, like, "is is possible we are seeing light from stars that aren't even there anymore?"

We had several members give software reviews. John Gallagher demonstrated Lunar Map Pro, excellent software to learn Moon Geography or just about anything you could possibly ever want to know about the Moon. Harry Zisko displayed Starry Night Backyard. You are able to explore every aspect of the night sky, solar system and the universe with this incredibly versatile software. Tom Piper showed us a site that track Star Dust, a solar powered space craft sent out to catch some dust from the Comet Wild 2. It departed Earth in February 1999 and is scheduled to return January 2006.

Meeting broke at 9:05 for refreshments and reconvened in the planetarium for a look at the arriving fall sky.

Treasurer's Report

by Jim MacDonald

HAS Financial Report as of July 15, 2002

Initial Balance:	$5,770.11
Receipts:	
Dues Received	158.00
Magazine Payments	88.90
T-Shirt Sales	75.00
Scope Rentals	40.00
Donation	10.00
Total Income:	$371.90
Expenses:	
Astronews	157.20
Magazine Subscription Payment	58.95
Refreshments	7.20
Postage	7.40
Total Expenses:	$230.75
Final Balance	$5,911.26

We have had six new members join HAS. They are **Raydianne Peterson**, **Kenneth Frank**, **Scott Schneeweis**, **Gabriel Lum**, **Gheri Fouts**, and **Timothy Ching**. Welcome to the club and *Clear Skies* to all renewing members!

How I Started *(Continued from page 9)*

say, you could not feel your feet.

My career took me to Amsterdam, where I paid $3000 for a Celestron C8 because of European taxes. That scope traveled all over Europe, especially Belgium. Later, I became friends with Lumicon's Jack Marling. In fact, when I returned to the States I did some advertising and marketing work for him. Jack Marling is a very, very nice man, and an incredible astronomer.

After looking through Barry's 12.5" in Hawaii, I got major aperture fever. I gave my Celestron to my boss so that he could take it up to his cabin in Kokee on Kauai. The thing was stolen from his garage! I bought a 14.5" StarMaster with a Pegasus mirror. I sold my car and took the bus for an entire year to afford the thing. While completely redoing my house, I sold the thing and made $750 in profit after nearly three years of use—that's how well respected the StarMaster and Pegasus names are in amateur circles. I'm not sure what I'm going to buy next. I'm thinking of a Pegasus mirror and a LiteBox, or a CCD outfit. I'm not sure. I'm still redoing my house—just the bathroom to go.

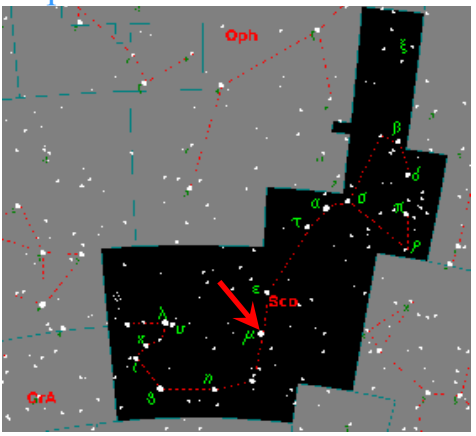
But you know something, for me, there is little difference between a 14.5" and lying back in the grass and gazing up at the heavens. Both experiences are equally rewarding. Astronomy makes me feel young, like a kid on the corner reading H.A. Rey. It's an amazing sensation.

Star Lore — μ1 and μ2 Scorpii

Editor

Although unnamed, this naked eye double star in the Scorpion makes a significantly more challenging test for keen eyesight than the more well known Alcor and Mizar. While the famous pair in Ursa Major are separated by 11'48", this pair is separated by only 5'46".

The pair is very close in magnitude with μ1 being magnitude 3,and μ2 being magnitude 3.5. As far as color goes, one is white and the other is white. This actually makes them easier to split with the naked eye.



μ1 and **μ2 Scorpii** M3-3.5 seen here at right of the

Another notable appearance of μ Scorpii is on the Brazilian Flag. Unlike the stars on the American flag, each particular star on the Brazilian flag represents one particular state. All stars are actually present in the night sky, which is depicted as if seen from above, and positioned as they would have been on 15 November 1889 at 20:30 over Rio de Janeiro. The Brazilian state of Pernambuco is represented by μ Scorpii.

There is some dispute over whether this pair is a true binary or an "optical" pair. The Melbourne Planetarium indicates that the two stars are locked together by their mutual gravitation, even though they are separated by almost a light-year, while Starry Night Pro indicate that μ1 is 826ly away, while the distance to μ2 is only 513ly, making it impossible for them to be gravitationally connected .

Desp sky note: Look halfway between Shaula (λ Scorpii) and μ and about 1° toward Antares for planetary NGC6302, aka the *bug nebula*.

Best Friend *(Continued from page 4)*

northeast of NGC 1502. Lucian informed me that a friend of his, a machinist, had shown him my letter. "Luc" then hand-held his own camera lens, a "superb F:1.2 flat-field aspherical Canon lens" at the proper focus on his 11" Celestron SCT. He was quite impressed with the view, and his friend made a finely machined adapter to attach the lens to the telescope as an eyepiece. Luc had been wowed by the great eye relief, large 3/4° field, and sharp stellar images.

It is nearly 2 decades later, and I recently acquired a Canon 55mm F:1.2 lends as described above, and also a 58mm Canon F:1.2 lens, but have not yet found a way to utilize them as eyepieces. Say, you don't know an HAS member who happens to be… a machinist?

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