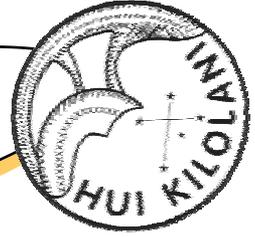


The Astronews



Volume 52, Issue 11

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November 2004

Hawaii Observes Partial Solar Eclipse



Upcoming Star Parties

Public Party	Nov 6	Dillingham
Club Party	Nov 13	Dillingham
Public Party	Nov 20	Kahala/Waikele
Public Party	Dec 4	Dillingham
Club Party	Dec 11	Dillingham
Public Party	Dec 18	Kahala/Waikele

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Upcoming Events:

- The next meeting is at 7:30 p.m. on Tuesday, Nov. 2nd at the Bishop Museum.
- **Sam Rhoads** next planetarium show is on Monday, Nov. 1st.

President's Message

October is notable this year for providing Hawaii with both a solar and a lunar eclipse. As I write this, the partial solar eclipse has already occurred, on October 13th from late afternoon until sunset. HAS assisted in showing the eclipse to teachers at Bishop Museum's eclipse viewing session during their Educators' Evening event. The sky was mostly clear, and we were treated to the sight of a partially eclipsed Sun setting. During this eclipse, no place on Earth could see totality because the umbra just missed the Earth. The eclipse was closest to total in Alaska, but here in Hawaii we saw a good-sized bite taken out of the Sun.

Still to come as I write is the lunar eclipse on October 27th. While this is a total eclipse visible in its entirety for most of the Americas and parts of Europe and Africa, Hawaii sees the Moon rise just after the end of totality while it is coming out of the umbra.

It might seem like a rare coincidence to have a solar and lunar eclipse occur so close together. Actually, it is not rare at all, but more like the usual state of affairs. Of course, solar eclipses are seen over a much smaller part of the Earth than are lunar eclipses, but the two kinds frequently occur half a month apart, and here is why.

If the Moon orbited the Earth exactly in the plane of the ecliptic (defined by Earth's orbit around the Sun), there would be both a solar eclipse and a lunar eclipse each month. However, because the Earth bulges slightly at the equator and rotates around an axis that is tilted from perpendicular to the ecliptic, the Moon is pulled off of the ecliptic slightly by Earth's gravity. On most orbits, the Moon passes slightly above or below the line that passes through the Earth and Sun.

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Planets Close To the Moon

Times are Hawaii Standard Time

- Nov 3, 12h, M 5.4° N of Saturn
(104° from sun in morning sky)
- Nov 9, 07h, M 0.92° NE of Jupiter
(38° from sun in morning sky)
- Nov 9, 15h, M 0.25° WSW of Venus
(33° from sun in morning sky)
- Nov 10, 18h, M 0.49° WSW of Mars
(19° from sun in morning sky)
- Nov 13, 17h, M 0.92° SSW of Mercury
(21° from sun in evening sky)
- Nov 17, 19h, M 5.1° SSE of Neptune
(77° from sun in evening sky)
- Nov 19, 06h, M 3.7° SSE of Uranus
(95° from sun in evening sky)
- Nov 30, 18h, M 5.2° N of Saturn
(132° from sun in evening sky)

Other Events of Interest

Times are Hawaii Standard Time

- Nov 4, 15h, Venus 0.55° NNE of Jupiter
(34° from sun in morning sky)
- Nov 9, 07h, Moon, Venus and Jupiter are
very close together in morning sky
- Nov 12, 04:25h, New Moon
- Nov 17, Leonid Meteors
- Nov 20, 15h, Mercury at greatest elonga-
tion (22° E of the sun in evening sky)
- Nov 26, 10:07h, Full Moon

The Planets in November

<p>#</p>	<p>Mercury</p> <p>will be visible low in the SW just after sunset in the last two weeks of Nov</p>	<p>\$</p>	<p>Venus</p> <p>Shines very brightly in the morning sky. Close to Jupiter on Nov 4. Mag, -4.0</p>
<p>%</p>	<p>Mars</p> <p>Still very dim, is now visible rising in the east about an hour before sunrise.</p>	<p>&</p>	<p>Jupiter</p> <p>Close to Venus in the morning sky. Mag, -1.7, Diameter 32".</p>
<p>'</p>	<p>Saturn</p> <p>Rises in mid-evening and is well placed for viewing by midnight. Mag, 0.0.</p>	<p>(</p>	<p>Uranus</p> <p>Well placed for viewing in the south just after evening twilight. Mag. +5.8.</p>
<p>)</p>	<p>Neptune</p> <p>.Near Uranus, is best viewed early in the evening. Mag, +7.9.</p>	<p>+</p>	<p>Pluto</p> <p>Pluto is too close to the sun to view.</p>

The October 5, 2004 meeting was called to order by President Chris Peterson at 7:35 p.m in the Atherton Halau, Bishop Museum with thirty-nine members and eight visitors in attendance. Chris greeted the membership and inquired about the interests of our visitors.

The X-Prize Won - The competition for the first privately funded non-governmental suborbital craft was won on October 4, 2004 for a craft designed by Burt Rutan. The craft attained suborbital altitudes for the second time in less than a week.

Planetary Data Center - Joe Boyse will speak October 19th on "The Genesis Mission - It's Two Major Impacts!" The talk will be held in room 504 of the POST Building on the UH Manoa Campus.

Member Passes- Member Su Reed, one of the members with the longest standing in the club, died the evening of September 7, 2004. She was remembered by members as an active individual who enjoyed her involvement in club activities.

15% Sale - Jim MacDonald informed club members that Sky Publishing is having a 15% off sale for all club members. See Jim for code to identify yourself for special percent off. Televue is also having a sale on Nagler and Radian eyepieces.

Club Jacket - Jim MacDonald has a bottle green, ladies gortex jacket for sale for \$29.

Bishop Museum Telescope - Jim MacDonald received 2 new aluminum gears. Jim will bore holes to fit shaft of telescope. Price \$9.00/each.

Kunia Star Party - G. West will contact Nature Conservancy and Del

Monte for November date to have and introductory star party for the site. Further information will be forthcoming.

Bishop Museum: October 13, 2004- There will be solar eclipse viewing at Bishop Museum for Teacher Workshop and any other visitors present. This event will not be publicized. Sun peeps will be available at Bishop Museum Telescopes need to be set up by 4:30. A Teacher's Workshop will be in progress from 4:00 p.m. to 8:00 pm. G.West will set up table to hand out information about school star parties as well as Kahala & Waialeale Star Parties.

Lacey Veach Day- A celebration of Science Education will take place October 30th at the Punahou School Science Building. If you would like to sign-up to man a hour shift please contact Gretchen West at 735-0482. Paul volunteered his sun scope and John G. will be there with his telescope and sun filter.

NASA Nite-Sky Network - John Gallagher spoke to membership about the "Origins" toolkit we have received. Activities are useful for newcomers to our Star Parties. Materials that enhance learning about the universe include star maps, star scavenger hunt and manipulatives for classroom and group work.

Club Elections coming in December- Joanne Bogan has again accepted responsibility to head up the Nominating Committee for this year's elections. Anyone interested in holding office contact Joanne.

October Speaker - Dr. Paul Coleman - whose specialty is in General

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Meteor Log—November 2004

by Mike Morrow

Sporadic rates remain good and this is a good year for the Taurids and the Leonids.

Friday the 5th, the **Southern Taurids**. Radiant 03h20m +13 deg.

Less than 5 meteors an hour.

Friday the 12th, the **Northern Taurids**. Radiant 03h52m +22 deg.

Again less than 5 meteors an hour. The new Moon is on the 12th which is perfect while the last quarter Moon is on the 5th which allows some darkness for the earlier Taurid max. Both radiants are above the horizon all night.

Wednesday the 17th, the **Leonids**. Radiant 10h12m +22 deg.

The maximum is forecast for 08 hrs UT. Nothing special is forecast for this year. It might be interesting just to observe the shower from about midnight till dawn.

Sunday the 21st, the **Alpha Monocerotids**. Radiant 07h48m +01 deg.

The maximum is forecast for 08:45UT. rates run from less than 5 meteors an hour to a few hundred. It might be interesting to observe after Moon set. Good Luck!

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

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:

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.

HAS Financial Report as of October 15, 2004

Initial Balance:..... \$5,167.88

Receipts:

Astronomy Payment 29.00
Donations 22.05
Dues Received..... 175.00
Polo Shirt Deposit 58.00
S&T Payments..... 131.80
Telescope Fee 20.00
Total Income: \$435.85

Expenses:

Astronews..... 155.31
Magazine Subscriptions 29.00
Refreshments 14.06
Total Expenses: \$198.37

Final Balance \$5,405.36

The club welcomes four new members this month. They are Daniel Fischberg; Barbara Ebersole & Ben, Diane Van Slyke and George McPheeters. Many thanks to those renewing their membership and to Gretchen West and James Branchaud for their generous donations. Clear skies to all!

President (Continued from page 2)

As the Earth orbits the Sun, the Moon's orbit gradually approaches, then passes through the eclipse alignment. Therefore, it is fairly common for at least partial solar and lunar eclipses to occur in pairs separated by half a month, the time it takes the Moon to move halfway around the Earth to the other eclipse position. This goes unnoticed by most people most of the time because the solar eclipse is not visible to most of the

people who can see the lunar eclipse. Hawaii was fortunate to be in a favored position this time.

So we say goodbye to bright planets in the evening sky for a short while, but before long we'll start another long cycle with good evening planetary viewing. Then, in about a year, everyone will notice Mars again.

Chris

Telescope Auction

A Celestron 80mm refractor has been donated to the HAS. It comes with an equatorial mount (non-motorized) and a wooden tripod. There doesn't seem to be any problem with the optics. The system seems to have gotten a lot of use and is NOT in "like new" condition.

It does NOT come with a star diagonal, any eyepieces, or a finder scope, and the tripod is missing a triangular connector to hold the legs securely together. It can, however, be used in its present condition. The club will auction off this telescope at our November meeting.

Minutes (Continued from page 4)
relativistic cosmology at the University of Hawaii's Institute for Astronomy spoke on "Hawaiian Astronomy - Then and Now." Dr. Coleman gave the audience a comprehensive introduction to the Hawaiian concept of the year in astronomical terms, as well as an overview of Hawaiian lunar terminology. He spoke of Hawaiian natural time and times of the day.

His talk touched on his own personal attempts to track down ancient Hawaiian names for the stars and constellations that the early Hawaiians lived by and used on a daily, monthly and yearly basis.

School Star Parties: There are currently no school star parties scheduled for the month of October. If you know

of school who wishes to have a special star party or some other astronomy related event, please contact Board members or Forrest Luke at lukef003@hawaii.rr.com.

Good Places to go for observer's information: The first Monday of each month is Sam Rhoads' Hawaiian Skies show in the Bishop Museum's Planetarium. It is a great learning experience, so if you're thinking of going be sure to phone 848-4168 to make reservations, ASAP.

The meeting adjourned at 9:24 pm. for refreshment.

Respectfully Submitted,
Gretchen West, HAS Secretary

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**Milky Way Man Barry Peckham at the Mid
Atlantic Star Party with a scope that mooded**