

December Guest Speaker

We have a special guest speaker at the December Meeting. Rachel Stevenson is a graduate student at IfA who has been working with Dave Jewitt on Comet 17/P Holmes. She will be giving us a short talk about their research.



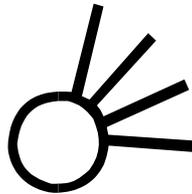
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Upcoming Star Parties

Public Party	Dec 1	Dillingham
Club Party	Dec 8	Dillingham
Public Party	Dec 15	Kahala/Waikele
Public Party	Dec 29	Dillingham
Club Party	Jan 5	Dillingham
Public Party	Jan 12	Kahala/Waikele

Note: Jan. meeting will be January 8th, not January 1st.



Upcoming Events:

- The next meeting is at 7:30 p.m. on **Tuesday, Dec. 4th** at the Bishop Museum.
- Bishop Museum's next planetarium show with **Barry Peckham** is Friday, **Dec. 7th** at 7:00 pm.

President's Message

People are often confused by retrograde motion of planets, but they needn't be. Part of the problem is that the name suggests that planets are actually backing up in their orbits when, of course, it's only an optical illusion.

All planets that orbit farther from the Sun than does Earth will appear to "back up" each time we "lap" them. If you are riding in the passenger seat of a car and fix your gaze on distant scenery outside your door's window, any car you pass will seem to be going backward as you pass it. If you view it long before or after you pass it, it will appear to be doing what it is doing, moving forward.

Similarly, exterior planets display retrograde motion near opposition, when we are closest to them, passing between them and the Sun. Prograde motion slows, then stops, then reverses. The maximum rate of retrograde motion occurs at or very nearly at opposition. Retrograde motion slows, stops, and reverses to normal prograde motion again.

Because Mars orbits less than twice as far from the Sun as Earth does, its retrograde motion is more pronounced than that of the planets further out. Mars has already begun its retrograde motion for this opposition period. It is now in Gemini near Mebsuta (epsilon Geminorum) on its way almost to Alnath (beta Tauri) in late January. The total retrograde motion is more than 17 degrees! Mars will be near M35 at opposition in late December.

Another effect of retrograde motion is to accelerate the rate at which planets rise earlier each evening. Stars near the ecliptic rise about two hours earlier each month. Mars rises at 7:02 p.m. on December 10th but at 4:09 p.m. on January 10th. This, combined with its increasing brightness around opposition, is why so many people suddenly notice and begin asking about this "new" object in their early evening sky. The questions are coming, so be ready to answer!

Chris

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Planets Close To the Moon

Times are Hawaii Standard Time

- Dec 1, 01h, M 2.1° SSW of Saturn
(91° from sun in morning sky)
- Dec 5, 08h, M 6.5° SSW of Venus
(43° from sun in morning sky)
- Dec 14, 09h, M 0.65° SE of Neptune
(57° from sun in evening sky)
- Dec 16, 06h, M 2.1° NNW of Uranus
(81° from sun in evening sky)
- Dec 23, 17h, M 0.92° N of Mars
(176° from sun in midnight sky)
- Dec 28, 10h, M 2.5° SSW of Saturn
(118° from sun in morning sky)

Other Events of Interest

Times are Hawaii Standard Time

- Dec 9, 07:40h, Moon New
- Dec 14, Geminid meteors
- Dec 15, 14h, Moon 0.95° NNW of Pallas
(72° from sun in evening sky)
- Dec 17, 05h, Mercury at superior conj. with sun (passes into evening sky)
- Dec 18, 14h, Mars nearest the earth
(0.589 au)
- Dec 20, 12h, Pluto at conjunction with sun
(passes into morning sky)
- Dec 21, 20:10h, Winter Solstice
- Dec 23, 15:15h, Moon Full
- Dec 24, 10h, Mars at opposition

Mercury and Jupiter are closer than 15° from the sun when near the moon in December.

Planets in December

<p> Mercury is too close to the sun to be observed during December.</p>	<p> Venus bright in the morning sky at mag. -4.1, but is getting lower and rises about 3 hours before the sun.</p>	<p> Mars reaches opposition Dec 24, but actually a wee bit brighter Dec 18 when it is closest to earth. Mag -1.6, 15.9"</p>
<p> Jupiter is so close to the sun in the evening sky that it cannot be viewed.</p>	<p> Saturn rises in mid-evening by the end of December. Magnitude +0.7.</p>	<p> Uranus at closest approach. is in Aquarius in the southwest at sunset and can be observed in the early evening.</p>
<p> Neptune is a little to the west of Uranus and can be viewed in the early evening in Capricornus.</p>	<p> Asteroid  2 Pallas is occulted by the moon during daylight hours on Dec 15 and can be observed near the moon that evening at mag. +9.1.</p>	<p> Dwarf Planet Ceres is still very well placed for viewing after opposition last month in Cetus near the border of Aries.</p>

President Peterson called the November 5, 2007 meeting of the Hawaiian Astronomical Society to order at 7:30 p.m. In attendance were twenty-four members.

Hawaii Space Lecture Series-

This month, the Hawaii Space Lecture Series will take place on Tuesday, November 13, 2007 at 7:30 p.m., at the NASA Pacific Regional Planetary Data Center, room 544 of the POST Bldg.

Communicating Effectively – The International Astronomical Union is giving away a free journal to astronomers involved in communicating information about the universe to the public. Contact Chris Peterson for details.

Lacy Veach Day – Gretchen West reported that the H.A.S. again participated in the activities of the fifth annual Astronaut Lacy Veach Day, at Punahou School on October 27th

General Information- H.A.S. President, Chris reports that the next shuttle mission will have Astronaut Stan Love, among others, traveling to the International Space Station. This next mission is said to be the one during which the ISS will be completed with the addition of new solar arrays and new astronaut crew quarters.

Kauai Trip – Barry Peckham is planning an astronomy night in cooperation with the Kauai Educational Association for Science and Astronomy. Plans are being firmed up for the weekend of January 5th If you are interested please contact Barry.

Comet – Comet 17P Holmes, first discovered in 1892 brightened

and became visible, even to the naked eye, during the past few weeks.

Elections – The annual elections for the Hawaiian Astronomical Society take place at the December meeting. This year's slate of nominees is as follows:

President Chris Peterson
Vice-President: Barry Peckham
Treasurer: Jim MacDonald
Secretary: Gretchen West
Editor: Paul Lawler
At-Large Members:
John Gallagher
Harry Zisko

Should you or any member you know wish to run please contact Joanne Bogan, this year's election chair, prior to the beginning of the December meeting.

Reflections- Joanne Bogan reviewed a "The Life and Times of the Thunderbolt Kid" by Bill Brice, and reflect back on life in the late '50's and 60's. Joanne also related her recent experiences at the Kamehameha School's Maui Campus event in Oct.

Leonid Meteor Showers – The Leonid meteor showers will occur from sunset of Saturday, November 17th into Sunday morning November 18th.

Night Sky Network – A short twenty-three minute video essay, which reviewed the NASA Discovery Missions, was the final activity for the evening.

The meeting was adjourned at 9:02 p.m. and refreshments were served..

Respectfully Submitted,
Gretchen West

An aspect of amateur astronomy in Hawaii that puzzles mainland folks is this: each island's astronomy group does its thing in complete isolation from all the others. Oahu has the membership quantity while the neighbor islands have the dark sky quality. The demand and supply relationship is a no-brainer, yet we have brainlessly marched through time with no relationship to our neighbor clubs ... until now.

Even on the rainy Garden Isle there is that part of every Hawaiian island where rain seldom falls. Oahu has filled its dry acres with houses and light

pollution. Kauai has not. Along the South Shore, past Poipu and past Hanapepe is a public star party site in a dark school parking lot, hosted monthly by KEASA: Kauai Education, Astronomy and Science Association. President John Ferguson has for years been setting up an 18 inch in the dark. Secretary Rozlyn Reiner has

been great with correspondence and tips on where to stay near the star party site.

Why go to the rainy isle in the month of highest average rainfall? Because January rains come in buckets, in big dumps, with perfect days and nights in between. The ratio is better than 4 to 1. Anyone who thinks they can win in Vegas will consider

Kauai a sure bet for January.

So why go to Kauai when we have Dillingham on this island? If you don't already know, it is probably no use trying to explain. However, I might remind everyone that

the Winter Milky Way is best in the Deep South, and the Deep South is best from a dark South Shore. We on Oahu do not have one. Kauai does. Please consider joining our HAS group for a visit with the neighbors. Star Party info is at www.keasa.org, and you can reach me at: barry@liteboxtelescopes.com



Join the Friends of the Institute for Astronomy (FIFA)

As a "Friend" you can be directly involved in the mission of the University of Hawaii's Institute for Astronomy. You will be invited to meet with IfA and visiting scientists, attend star parties and other activities. You will also receive quarterly newsletters and invitations to special events at the IfA. For more information and an application: www.ifa.hawaii.edu/friends

THE HAWAIIAN ASTRONOMICAL SOCIETY
MEMBERSHIP APPLICATION
2006/2007

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Fill out this form and send with your check to:
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P.O. Box 17671
Honolulu, Hawaii 96817-0671

HAS Financial Report as of November 15, 2007

Initial Balance:	\$4,160.99
Receipts:	
Dues Received	140.00
Donations	10.00
Calendars	6.48
Magazine Payments	200.85
T-Shirt Sales	60.00
Total Income:	\$417.33
Expenses:	
Astronews	64.00
Postage	2.66
Refreshments	8.64
Calendars	174.83
Magazine Subscriptions	140.81
Total Expenses:	\$390.94
Ending Balance:	\$4,187.38

This month our membership remained unchanged. Thanks to Warren Arakaki for his donation, and to everyone renewing their membership this month. Clear skies to all!

Meteor Log—December 2007

by Mike Morrow

The full Moon only messes up the Ursids, but sporadic rates remain good.

Thursday the **6th**, the **Phoenicids**. Radiant 01h12m -53 deg. Lunar conditions are near-perfect. This is a gradual southern hemisphere shower, but it has been observed in Hawaii. Rates run from near nothing to about 75 an hour. Meteors are slow and moderately bright.

Friday the **14th**, the **Geminids**. Radiant 07h28m +33 deg. The Moon will set in the mid evening. The maximum is forecast for about 6h45m AM. Rates can run up to about 75 meteors an hour. The shower is associated with an Apollo asteroid, 3200 Phaethon which on december 10th makes its closest approach to Earth since 1983.

Saturday the **22nd**, the **Ursids**. Radiant 14h28m +76 deg. The radiant is very near the star Kochab (beta Ursae Minoris). Ursids tend to be faint and medium-speed.

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

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Carlos Reis of Portugal took this picture of the converging comet
Holmes and Mirfak on November 17