

Astro Pizza

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Deep Dish Pizza with a Deep Impact!

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Greetings Fellow Stargazer,

Well... so much happening since the last Pizzagram! Highlights consist of Deep Impact and a Space Shuttle launch. And there is soooo much more to come, nearterm will be the Perseids and two Star Parties in August! Keep current with what is happening out there with one of my favorite podcasts, Slacker Astronomy at:

<http://slackerastronomy.org/wordpress/index.php>

For those who circle things on a calendar, circle this date: Friday, August 12th. Next to the circle write "get up way before sunrise and see the Perseids Meteors!" Attach the note to your refrigerator in plain view so you won't miss the 2005 Perseids meteor shower peak. We will get a good preview of the shower this year at the Aug 6th Star Party.

The Perseids come every year, beginning in late July and stretching into August. Sky watchers outdoors at the right time can see colorful fireballs, occasional outbursts and, almost always, long hours of gracefully streaking meteors. Among the many nights of the shower, there is always one night that is best. This year it is night of August 11 and morning of August 12th. The source of the shower is Comet Swift-Tuttle. Although the comet is nowhere near Earth, the comet's wide tail does intersect Earth's orbit. We glide through it every year in July and August. Tiny bits of comet dust hit Earth's atmosphere traveling 130,000 mph. At that speed, even a tiny smidgen of dust makes a vivid streak of light (a meteor) when it disintegrates. The shower is most intense when Earth is in the dustiest part of the tail.

Also Earth and Mars are converging for a close encounter on October 30th. So mark that on your calendar also. Mars already outshines every star in the night sky, and it's getting brighter every night. If you like August, you'll love October.

NOTE: Many of you have been sending to me and others an Urban Legend about Mars becoming as big as the moon. NOT TRUE. Check out:

http://urbanlegends.about.com/library/bl_mars_encounter.htm

Indeed Mars is getting closer and worth coming to the October Star Party

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to see it. Earth and Mars will pass very close to one another again in October 2005 (not August as the email spam says), at which time their orbits will be a mere 43 million miles apart (slightly more than the 35 million miles separating them in 2003). It won't quite equal the once-in-a-lifetime show of two years ago, but the encounter will be "breathtaking" nonetheless, scientists predict, with the red planet outshining every object in the night sky EXCEPT Venus and the Moon. Mars is the red planet which of course reminds me of pizza, so why not bring some pizza to a Star Party and lets look for some shooting stars and other heavenly delights. Speaking to Star Parties, you are invited to two this month!

Star Party Invitation for August 6th and 27th,
Sponsored by the Hawaiian Astronomical Society
<http://www.hawastsoc.org>

Dillingham Airfield – before sunset 7ish pm)
(Star Party Directions are at the end of this message)

Bring:

<http://www.bishopmuseum.org/planetarium/skyWatch/2005/08/aug05.pdf>

Here is where I go to check the weather on a Star Party Night:

<http://www.wunderground.com/radar/radblast.asp?num=6&delay=15&scale=1&noclutter=0&ID=HMO&type=NOR&lat=0&lon=0&label=you>

If it is clear, you will be able to see many astronomical sights.

It's now that time of year to see Jupiter, the Ring Nebula, M13, Sagittarius, Scorpius, Virgo and many other heavenly bodies!

If you won't be in Hawaii, fear not. Check this link for a Star Party near you!

<http://SkyandTelescope.com/resources/organizations/>

Deep Impact

Scientists continued to pore over data gathered when a copper probe from NASA's Deep Impact spacecraft blasted a crater in comet Tempel 1 on July 4 to expose its primordial core.

Comets are believed to be the frozen leftover building blocks of the solar system, formed when a huge cloud of gas and dust collapsed about 4.5 billion years ago. Studying them could provide clues to the birth of the solar system. Soon after the 820-pound probe hit Tempel 1, scientists detected evidence of water, carbon dioxide and organic substances spewing from the comet. The high-speed collision produced two flashes of light and hurled a plume of fine, powdery dust from the comet thousands of miles into space.

"This probably means the material in the comet came together very gently," said Michael A'Hearn, an astronomer at the University of Maryland and the mission's principal investigator. "If it melted and resolidified, it would have the strength of solid ice." Scientists are waiting for the dust from the larger-than-expected debris cloud to settle before they can get their first glimpse at the inside of the comet and determine the size and depth of the crater. They said the crater was larger than a house and possibly as big as a football stadium.

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Comets are believed to be abundant in water, and astronomers were surprised to find a lack of water vapor after the collision. Preliminary findings by a science instrument aboard a NASA satellite in Earth orbit showed Tempel 1 released about 550 pounds of water per second, similar to the amount before the impact, suggesting the comet contains more dust than ice.

The Perseids

Perseids meteors fly out of the constellation Perseus, hence their name. The best time to watch is during the hours before sunrise when Perseus is high in the sky. Between 2 a.m. and dawn on August 12th, if you get away from city lights, you could see hundreds of meteors. Scouts and camping families, this is a good time to go camping! The Perseids come on a warm summer night. Other familiar meteor showers like the Leonids of November require a parka to enjoy unless you are with us in Hawaii!.

MARS

There's something bewitching about Mars, maybe the red color or perhaps the fact that it doesn't twinkle like a true star. It's steady. You stare at Mars and it stares right back.

Earth and Mars are converging for a close encounter on October 30th. Mars already outshines every star in the night sky, and it's getting brighter every night. If you like it in August, you'll love it October. And you will like August. Picture this: It's four in the morning. The sky is dark. The breeze is pleasant. Mars is beaming down from the east while meteors flit across the sky. Maybe you should go circle the calendar again.

If you miss this month's HAS Star Party then join us at the next:

***** 2005 *****

September 24th

October 22nd

December 3rd

***** 2006 *****

January 21st

"The Star" by Jane Taylor.
Twinkle, twinkle, little star,
How I wonder what you are!
Up above the world so high,
Like a diamond in the sky.

When the blazing sun is gone,
When he nothing shines upon,
Then you show your little light,
Twinkle, twinkle, all the night.

Then the trav'ler in the dark,
Thanks you for your tiny spark,
He could not see which way to go,

If you did not twinkle so.

In the dark blue sky you keep,
And often through my curtains peep,
For you never shut your eye,
Till the sun is in the sky.

As your bright and tiny spark,
Lights the traveler in the dark—
Though I know not what you are,
Twinkle, twinkle, little star.

The Wanderers (The Planets) this Month
Mercury is hidden in the glare of the Sun.

Venus (magnitude -3.8) shines low in the west in evening twilight. It sets as twilight ends.

Mars (magnitude -0.5) rises fiery orange in the east just before midnight. By the first light of dawn it shines in excellent view very high in the southeast. Each week Mars is rising earlier and growing larger and brighter. In a telescope it's currently only 11 arcseconds wide (and showing its gibbous phase), but in late October it will reach a maximum apparent diameter of 20 arcseconds. Check out recent amateur images of the planet!

Jupiter (magnitude -1.8, in Virgo) shines in the west–southwest during and after twilight, far to the upper left of Venus. The two planets are on their way to a close conjunction on September 1st.

Saturn is buried deep in the glow of dawn.

Uranus and Neptune (magnitudes 5.7 and 7.8, respectively, in Aquarius and Capricornus) are well up in the southeast by midnight.

Pluto (magnitude 14, in Serpens Cauda) is highest in the south right after dark. Use at least a 10–inch scope to find.

Annual Meteor Showers

Quadrantids: January

Virginids: March/April

Lyrids: April

Scorpiids: May

Delta Aquarids: July

Perseids August

Piscids: September

Orionids: October

Leonids: November

Geminids: December

Find what is moving overhead after sunset:

<http://www.bester.com/>

<http://liftoff.msfc.nasa.gov/RealTime/JTrack/3d/JTrack3d.html>

Check out when the next Iridium Satellite is available for you to see:

<http://www.heavens-above.com/Neighbours.asp?PlaceID=593409>

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(for non Oahu Star Gazers...)

<http://www.heavens-above.com/selecttown.asp?CountryID=US>

Check out:

<http://www.seds.org/messier/xtra/12months/m-aug-i.html>

and bring the above list...

As for the rest of the Messiers, check out

<http://www.hawastsoc.org/deepsky/messier.html> It also has a link to:

<http://www.hawastsoc.org/messier/index.html>

(all the Messier Objects as photographed by HAS's local Jay Wrathall)

Star Party Directions

(<http://www.hawastsoc.org/directions/dillingham.html>)

To reach the Dillingham observing site, take the H2 to the end at Schofield Barracks. Drive past Schofield and follow the signs to Waialua. At the Y intersection at Waialua, bear left and pass under the bridge. Drive out of town a few miles until you reach Dillingham Airfield. Dillingham is several miles long. It has three gates. You need to drive to the far end to the third gate (marked as Gate 1 on the color map). When you enter the gate, the road will curve left behind some hangars. It will then take you through a very sharp S curve. 1/4 mile beyond that is a stop sign in the middle of nowhere. Turn right at the stop sign, and you will be there. You can find me by looking for the big red telescope in the corner with a table with lots of pizza on it.

You will need to reach the site before sunset in order to find the gate open!!!

A few words on light. We try to maintain dark conditions at the site.

Therefore we have certain rules about light. First, no white flashlights. The only flashlights that you should use are not too bright, red ones.

When entering and exiting the site, do not use headlights. Some cars now can't turn off their headlights. If you have a car like that please park nearer the windsock than the telescopes. Point it away from the telescopes. Headlights make you lose your night vision for up to 30 minutes. It immediately ruins any astro photography that might be in progress.

Bring some warm clothes, something to sit on, some real powerful bug spray, a dim or red covered flashlight and some munches to share with your friends.

Remember there is an absolute need to remain clear of the runway, and anyone attending the star party needs to remain in the immediate star party area. Do not be wandering around in areas where we are not permitted. Especially near any planes (parked or moving)!

Bishop Museum Planetarium Happenings

<http://www.bishopmuseum.org/visitors/dailyschedule.html>

Daily Planetarium schedule:

(808) 848-4136 for pre-recorded planetarium schedule.

11:30 a.m. The Stars Tonight (40 Minutes)

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12:30 p.m. Explorers of Polynesia in Japanese, (30 Minutes)
1:00 p.m. Deep Impact: Rendezvous With a Comet, (30 Minutes)
2:30–3:15p.m. Observatory is open for solar viewing
3:30 p.m. Explorers of Polynesia (in English, 45 Minutes)
Barry Peckham will host the Sky Tonight program on the first Friday of each month. Reservations are required as there is limited seating in the planetarium. Call 848–4168 for information and reservations.
Tickets cost \$4 for adults, \$3 for kids, free to Bishop Museum members and Hawaiian Astronomical Society members.

After Dark with Stars in the Park
Waialeale Community Park
OR... Kahala Park
(Weather permitting)

***** 2005 *****

August 13th
September 10th
October 8th
November 5th
December 10th

***** 2006 *****

January 7th
FROM DUSK to 9:30 PM
Bring your children! Tell your friends!

Visit the cosmos via:

The HAS HomePage: <http://www.hawastsoc.org/> or go to
(or show up at meeting 7:30pm first Tue of month)
and check out the Bishop Museum Planetarium Home Page
<http://bishopmuseum.org/exhibits/planetarium/planetarium.html>
and the Institute for Astronomy Colloquia/Seminars
<http://www.ifa.hawaii.edu/>
http://apollo-society.org/launchpad39_A.html

Keep Looking Sky Ward...Gary Ward
<http://homepage.mac.com/macyoda/PhotoAlbum6.html>

The Lone Sidewalk Astronomer of Rosamond
Telescope Buyers FAQ
<http://home.inreach.com/starlord>
Astronomy Net Online Gift Shop
http://www.cafepress.com/astronomy_net

- Prev by Date: *Re: Losmandy GM8, Celestron C9.25" combination question*
- Next by Date: *Re: Photos*
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