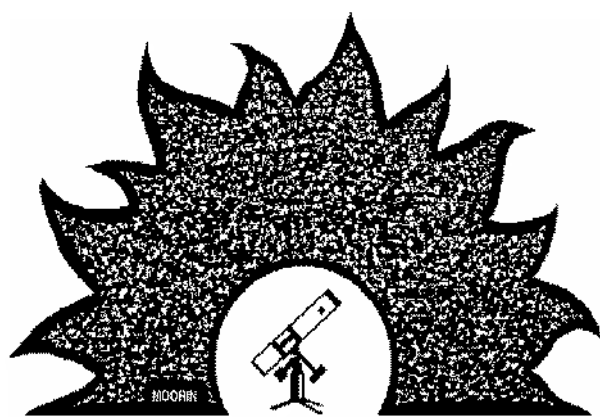




PAStimes

Phoenix Astronomical Society
www.pasaz.org

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Volume 61 Issue 8

PHOENIX ASTRONOMICAL SOCIETY — ESTABLISHED 1948

Klaus Brasch to Speak at April First meeting

By Terri, Event Coordinator

At the April 1st PAS meeting, we will have an awesome Guest Speaker, Klaus Brasch. Klaus has done a previous talk for PAS. Everyone enjoyed it and so I asked him to return. Klaus comes to us from Flagstaff this evening & has an exciting story to share with us. Everyone is welcome at this meeting.

ASTRO IMAGING ADVENTURES IN CHILE

Written by Klaus Brasch

In the spring of 2009, my long time friend and noted author Terence Dickinson and I, joined a group of Canadian amateur astronomers and science writers on a 14 day trip to the Atacama region of Chile. We stayed at the Atacama Lodge, a private ranch and astronomical observatory just outside the 500 year old town of San Pedro de Atacama. The region is the driest and most cloud-free on Earth and home to a dozen major astronomical facilities, as well as many imposing natural and geological sights. Between us, Terry and I obtained over 300 digital astro-images on 12 consecutive clear nights.

After rewarding careers in research, teaching and administration at several universities in the US and Canada, Klaus and

his wife Margaret retired to Flagstaff in 2006. Though a biologist professionally, Klaus got hooked on astronomy in his teens through the Royal Astronomical Society of Canada and the Association of Lunar and Planetary Observers, and has maintained an active interest ever since. He is vice president of the Coconino Astronomical Society and a docent at Lowell Observatory.

In the 1970s at Queen's University in Ontario, he teamed with radio astronomer Alan Bridle to develop a then-pioneering course on "Planets and Life" and later taught "Life in the Cosmos" at California State University, San Bernardino.

An avid astrophotographer, Klaus took his first grainy moon pictures in 1957 and now enjoys digital imaging from his backyard observatory. His images have been published in popular books and magazines like Sky & Telescope, Astronomy Now, Sky News, and Astronomy Technology Today. He has also translated several French books into English, including Urban Astronomy, Great Observatories of the World and New Atlas of the Moon. Klaus frequently lectures on topics ranging from astro imaging to life in the universe to students, clubs and the public program at Lowell.

SPECIAL GUEST SPEAKER AFTER MAIN MEETING

Following the PAS meeting of Apr 1st will be a mini 10-minute presentation done by Angela Cotera in room G-147. The officers have called this special officers meeting, to which he officers have invited PAS members. The meeting will begin at 9:40 to allow those closing up the Main PAS meeting in the Library time to walk over to room G-147. Below is a paragraph submitted by Angela about herself. PAS Members are urged to attend.

Dr. Angela Cotera is a Principal Investigator at the Carl Sagan Center for the Study of Life in the Universe, part of the SETI Institute. Her primary research interest is star formation; from low mass stars in the Taurus-Auriga Cloud, to massive stars in Giant HII Regions. Her favorite region, however, is the Center of our Galaxy. She will present a few results from a recent Hubble Space Telescope survey of the Galactic Center, for which she is one of the prime researchers. Angela is also running for the Arizona House of Representatives this year, and will talk about how you can help to restore public education in our great state.

Non PAS April Events

There are 2 events that happen this month that may interest everyone. You can find them in the PAS Calendar at the links provided below. Remember, PAS needs your help at the PAS events on those dates as well.

Apr 17: SAC will host their annual Thunderbird Park Star Party from 6:30pm to

9:30pm. Google will help you find the park entrance. Details can be found at this link:

<http://www.pasaz.org/forums/calendar.php?do=getinfo&e=360&day=2010-4-17&c=2>

Apr 22: For the Fall and Winter semesters, Paul Schmidtke hosts a star party for the students of ASU West that is also open

to the public. We meet by the helicopter landing pad. There is a slab of concrete there we set up by. If you plan to attend this event, RSVP with Paul. All details can be found at this link:

<http://www.pasaz.org/forums/calendar.php?do=getinfo&e=262&day=2010-4-22&c=1>. ***

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<u>Rocketry Liaison</u>	Jerry Belcher	623-328-9290	http://ahpra.org/launches.html

Upcoming April PAS Events

By Terri, Event Coordinator

Apr 1: We begin April with the April 1st, April Fools PAS meeting. Bring your fools with you to this meeting. We have a great speaker line up & plenty of fun to be had at this meeting. 7pm to 9pm, Everyone Welcome! See you there.

Apr 3: VSP = Virtual Star Party at Chris's home in Goodyear. RSVP is required with Chris. We begin the astrophotography at 8pm. Arrive by 7:30pm for set up. PAS Members only.

Apr 4: Telescope Training Workshop at Bookman's fro 3:30 - 5:30. RSVP is required with Terri. Bring your telescope, learn how to use it by daylight. Everyone welcome!

Apr 10: CEO = Cuttin' Edge Observatory star party. Chris's observatory in May-er is open to PAS Members who wish to view in the darkest skies around Arizona. RSVP is required with Chris.

Apr 13: Chaparral HS wishes to have a star party from 7pm to 9pm. PAS members are encouraged to join in the fun.

RSVP is with Rod for this event.

Apr 15: Telescope Training Workshop at PVCC in G-147. Learn to use your telescope in the classroom by day, then take it outdoors & with assistance, learn to use it at night. Star Party set up for visitors who just wish to view through telescopes. RSVP for this event is required with Terri. 7pm to 9pm. Everyone Welcome.

Apr 17: This is the big Wigwam event. Wigwam Creek School got rained out the last time we had it scheduled in February. This is the new date. We need PAS Volunteers with or without telescopes. All events that were planned previously are still going to happen as planned. Please RSVP with Terri if you can assist. This event is from 4pm to 10pm. Food is being supplied by our contact: Eric.

Apr 18: Telescope Training Workshop at Bookman's fro 3:30 - 5:30. RSVP is required with Terri. Bring your telescope, learn how to use it by daylight. Everyone welcome!

Apr 22: PAS Indoor/Outdoor Astro

Event from 7:30 to 9:30pm at PVCC in G-147. Hands on activities indoors, star party outdoors. RSVP is with Terri and PAS volunteers are needed. Everyone welcome!

Apr 24: Mike is hosting a star party in honor of Astronomy Day at his home beginning at 4pm. PAS members are welcome. Public may be invited by contacting Mike. RSVP is required with Mike by all attendees. It will be a POTLUCK. Bring a dish and drink to share. After the star party, movies may be watched, so bring one if you wish to share. And sleep over is available for those who do not wish to drive home from Carefree. Contact Mike for additional info.

Apr 29: NO MEETING OF THE MINDS. Instead, we are doing the Arrowhead Elementary school star party from 6pm to 8pm. PAS Volunteers are needed. RSVP is with Terri.

We hope to see everyone at these fine events. We have a lot this month. Plan to attend them all! ***

PAS March Meeting Review

By Terri, Event Coordinator

Photos of this event are at: http://www.pasaz.org/forums/gallery.php?g2_itemId=6050

This was an awesome meeting. We had a great turnout of PAS members to watch Mike do the best presentation he has done in history so far. Topic was Exploiting Space for Fun & Profit. The audience was very involved in this presentation. We had a few technical difficulties but we got the meaning of what Mike wished to share with us.

Jerry did a brief presentation with a lot of humor of Land Sharks seen at the big rocket launch over the weekend. Jerry can really share some funny stories.

The Raffle this month was rather exciting. Not only did we have the 50/50 raffle

but Joe Collins donated a Planetarium program. The 50/50 was won by Bruce. The planetarium program was won by Mike. Originally Joe won the planetarium program back, so he put it back in for another drawing. Thank you Joe for donating the program. \$33.50 was won by Bruce & PAS.

As the meeting was coming to a close, Tim was sharing some info on PITA. More details on that may be presented in future issues of PAStimes newsletter. Watch for them.

Thanks goes to Mike for an awesome presentation. Thanks to everyone who provided snacks: Sam brought popcorn, Wursts brought cookies. We hope to see you all at the April PAS meeting!!! The meetings just keep getting better and better!!! ***



Photo courtesy Terri Finch

Vice President & PAS Members Seeking Speakers

By Terri, Vice Prez & Event Coordinator

I have been getting input from various PAS members who seem to think that finding a Guest Speaker is an easy job. As Vice, and Rod as Prez, we both work hard towards finding interesting Guest Speakers to come to PAS, on their time, at our meeting, for your enjoyment. They don't get paid for their talk. The check that is written to a few guest speakers for their trip to PAS and home, is gas money if they are from out of the Phoenix area. Quite a few of our speakers this year have been from Flagstaff. If

you lived there, wouldn't you want at least your gas costs covered for your time to come talk to PAS? I challenge any PAS member to find a guest speaker. I can't find speakers that interest everyone, all the time. If your interest is not in Archeo-Astronomy, then maybe you might want to skip that month's meeting. But, I try to find speakers that will share with us what we want to hear about. I'm limited in my resources, and I don't like to repeat speakers too often. So, send me the contact info I need to get a guest speaker, and we will have someone

new. And if you have a complaint about a speaker, please... think before you express that view. These speakers come to us expecting nothing more than a good, courteous (listening) audience. If I am not supplying the speakers you wish to hear from, then please, find some. And if you want my position in PAS, feel free to nominate yourself at the May 2010 PAS Elections. I'll gladly give up finding guest speakers for our meetings to anyone who wishes to tackle the job. Come on - speak up! ***

Arizona Sky Article

By Terri, Event Coordinator

While editing the newsletter for March, I was reviewing the awesome article Leah writes each month for our enjoyment and knowledge. I just want to take a

moment to really thank Leah for all her hard work and planning she puts into her newsletter submission of AZ Sky. This has become one of my favorite things in the

newsletter to read each month. I do hope she can continue to share her thoughts on the sky, each month that PAS produces a newsletter. THANK YOU LEAH!!! ***

Newsletter Editors

By Terri, Event Coordinator

Each month, the Editor of our PAS-times Newsletter, Don Boyd, does a spectacular job of putting together the Newsletter. Without Don's wonderful efforts we wouldn't have a monthly newsletter. Many thanks to Don - he definitely deserves more than just the credit for doing our newsletter. At the same time, we should also thank those who assist him. Matt Kohl and I have been spending count-

less hours helping Don by reviewing the newsletter draft, until we sometimes feel cross-eyed, searching for errors that need correction, and helping to make a great final copy. For the March issue, we incorporated Leah Sapir's assistance. I want to thank Matt and Leah for helping to make our newsletter error-free. As it turned out, the March issue needed a lot of extra editing for correction of typos and other mistakes.

If you would like to assist in the future, drop me an email and we will keep your name "on-call." If we should need some extra assistance in any future month, as we did for the March issue, I will forward a draft copy of the newsletter to you for editing help. All help is appreciated! Send your editing request to Events@pasaz.org. The corrected draft would then be sent to Don, and I will provide his email address at the appropriate time so you can help in the most efficient way. ***

DID YOU KNOW...

... that life was discovered on Jupiter in 1996? According to AOL, the Galileo spacecraft launched a probe into the atmosphere of the gas giant. Information gathered from the probe revealed the presence of organic chemicals and gasses that are the "signature of life." This astounding info was confirmed by Ted Leonsis, president of AOL, stating "that his company had documents proving a massive government coverup of the facts." As the day wore on, users started to notice what day it was: April 1st.

... that the space shuttle Discovery landed at Montgomery Field, located just outside of San Diego in 1993? Traffic was tied up for hours at the small airport as hundreds of rubberneckers gathered for what they thought would be a once-in-a-lifetime view of the landing of the shuttle.

Information that Discovery had been diverted from Edwards AFB to Montgomery Field was relayed by radio DJ Dave Richards on radio station KGB-FM. Police were notified and went to clear the area. The crowds were dismayed when the shuttle never arrived. Why? One reason could be that there was no space shuttle in orbit at the time. Another could be that the announcement took place on April 1st.

... the moons of Mars were discovered to be artificial satellites in 1959? Amateur astronomer Walter Scott Houston of the Great Plains Astronomical Society reported in the Society's April newsletter that:

"Just last week Dr. Arthur Hayall of the University of the Sierras reports that the moons of Mars are actually artificial satellites... They are truly space stations in the most elaborate

sense of the word...even though the race that flung them so magnificently into orbit may be dead and gone, they still orbit as the greatest monument to intelligent accomplishment yet known to mankind."

Not long after, the story was supported by a Soviet scientist, Dr. Iosip Shklovsky, in *Komsomol Pravda*, a Communist youth league publication. American scientists were not sure what to make of Shklovsky's claims as he made them with absolute confidence. None other than Dr. Gerald Kuiper thought Shklovsky "much too brilliant to believe such nonsense." After all, both Dr. Hayall and the University of the Sierras were completely fictitious. Dr. Houston explained he had chosen the story because it was "so ludicrous it would not need to be labeled a gag."

Arizona Sky



By Leah Sapir

Ursa Major, home of the Big Dipper, is high overhead this month. When we look towards Ursa Major we are looking away from the plane of our galaxy, so we can see far into space – towards other galaxies near and far. Or to be more exact, since no galaxy is actually “near”, maybe we should describe them as those that are far away, and those that are even farther.

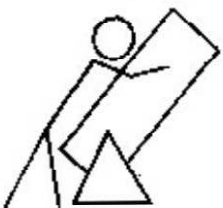
A little to the northwest of the Big Dipper is an interesting pair of galaxies, M81 and M82. At “only” about 13 million light years from us, they’re one of the less-distant galaxies, practically in our back yard!

Draw a line from Gamma Ursae Majoris (“Phad” or “Phecda”, the bottom left star of the Big Dipper) through Alpha Ursae Majoris (“Dubhe”, the top right star of the Dipper); the distance between them is about 10 degrees. Continue in the same direction for another 10 degrees to find M81 and M82.

Both galaxies were discovered by Johann Bode in 1774. M81 is a beautiful spiral galaxy, about 95,000 light years across. Photographs show its delicate spiral arms. At its core is an “active galactic nucleus” that produces higher-than-usual radiation over the whole electromagnetic spectrum; this is probably due to a massive black hole. It is estimated that the black hole in M81’s core contains 60 million solar masses. (For comparison, the total mass of M81 is about 50 billion solar masses. The Milky Way is slightly larger in diameter but around ten times as massive, with an estimated 600 billion solar masses.)

About 150,000 light years from M81 is M82, a small “irregular” galaxy, or possibly an edge-on spiral, about 40,000 light years in length. It is sometimes called the “Cigar Galaxy” because of its shape. Photographs show that there is much going on here! The activity is probably due to gravitational interaction with its larger neighbor, M81.

M82 is a “starburst galaxy” where intense star formation is taking place at its core, at a rate that is approximately three times the annual star formation rate of the Milky Way. Supernovae explode in M82 around once every ten



Starburst Galaxy M82, photographed by the Hubble Space Telescope



Galaxies M81 and M82, photographed by Lynn van Rooijen (http://www.wpshtgooo.nl/lynn_van_rooijen1.htm) and featured on www.astronomy.fm

years, on average; and this creates a “superwind” of material moving out of the galaxy at a rate of 500 miles per second, in two jets perpendicular to the plane of the galaxy. The jets, which can be seen in a picture by the Hubble Space Telescope, are crashing into a halo of material surrounding the galaxy, which was the result

of earlier interactions with M81.

M81 and M82 are the largest members of the M81 group, which includes at least 11 gravitationally-bound galaxies in Ursa Major, Draco, and Camelopardalis. The two closest are the dwarf elliptical galaxy NGC 3077 and the spiral NGC 2976.

NGC 3077, only 20,000 light years in

Arizona Sky

diameter, is about 200,000 light years southeast of M81. Like M82, it has experienced previous interactions with its larger neighbor, and shows star formation in its nucleus. NGC 2976 is about the same size as NGC 3077 and is about 300,000 light years southwest of M81. Both satellite galaxies are joined to M81 with long streamers of neutral hydrogen.

A more distant but prominent member of the group is NGC 2403 in Camelopardalis, about 3 million light years from M81. NGC 2403 is a barred spiral galaxy about 70,000 light years in diameter. Several brighter spots are visible in its spiral arms; these are masses of ionized hydrogen where young stars are forming.

Nearer to the center of the Big Dipper, a little to the southeast of Beta Ursae Majoris ("Merak", the bottom right star of the Dipper's bowl) is another interesting pair: M97 and M108. In this case, the two objects are not anywhere near each other, but simply in the same line of sight.

M97, at an estimated distance of 2000 light years, is a planetary nebula, the last stage in a star's lifetime. In this phase, when the star has run out of fuel, its outer layers expand and its core contracts, becoming a white dwarf star that irradiates the outer layers and makes them glow.

M97 is nicknamed the "Owl Nebula" because it has two dark spots resembling an owl's eyes. But, what is its actual three-dimensional structure? Some planetary nebulae, like M57 (the Ring Nebula) appear spherical, and some, like M27 (the Dumbbell Nebula) have two lobes. What is the source of the dark areas in the otherwise-spherical M97?

It is possible that the main part of M97 has an hourglass shape seen at an angle, so that the ends of the hourglass form the "owl eyes". This central structure is surrounded by several elliptical shells, each of which resulted from a separate episode of expansion of the aging star's outer layers – solar winds emitted at different times and different speeds, and forming a shock wave where they crash into earlier layers.

M108, the optical "neighbor" of M97, is a barred spiral galaxy about 40 million light years away, seen edge-on from our viewpoint. It has a somewhat "lumpy" appearance due to large dust lanes, although a few of the "brighter spots" are actually just foreground stars in our own galaxy. M108 also features two giant loops of hydrogen gas, one on each end of the



The Owl Nebula M97 and Spiral Galaxy M108, photographed by Tyler Allred (<http://www.allred-astro.com>) and featured on www.astronomy.fm

galaxy, that are racing outward parallel to the galaxy's disk at a rate of several dozen miles per second. The loops are each about 10,000 to 20,000 light years wide, quite large compared to the galaxy's total diameter of about 100,000 light years. They have been expanding outward for about 50 million years, and could have originated in an episode of supernova activity, or as jets from a central black hole.

Both M97 and M108 were discovered by Pierre Mechain in 1781, and M97 was immediately added to the growing catalog of deep sky objects compiled by Mechain's friend, Charles Messier. But for some reason, Messier didn't include M108 in the list. It was only added in 1953, based on Messier's and Mechain's original notes.

Back in the solar system, Mars is moving away from us and is now over 100 million miles away. It's starting to set earlier, but is still visible all evening till around 2 am. Saturn is past its opposition but is still up for most of the night.

Venus and Mercury are easily visible in

the west after sunset. Venus will continue to get higher and brighter in coming months, but Mercury will be fading into the sunset after midmonth, so catch it while you can!

Jupiter, Uranus, and Neptune are morning stars this month, and the crescent moon will make a nice grouping with them on the morning of April 11. Then the moon passes into the evening sky, where it joins Venus and Mercury on April 15. On April 16, the moon will be near the Pleiades, with Venus and Mercury not far away; and on April 17 the moon will be near the Hyades in the west after sunset.

Mars is still hanging around the Beehive cluster all month, with its closest point around April 16-17. The first-quarter moon makes a guest appearance in the group on April 21, and on April 24-26 the moon will be close to Saturn.

Join us next month when we continue to explore the spring and summer constellations. And till then – wishing you clear skies, and happy observing!



Deadly Planets

By Patrick L. Barry and Dr. Tony Phillips

About 900 light years from here is a rocky planet not much bigger than Earth. It goes around its star once every hundred days, a trifle fast, but not too different from a standard Earth-year. At least two and possibly three other planets circle the same star, forming a complete solar system.

Interested? Don't be. Going there would be the last thing you ever do. The star is a pulsar, PSR 1257+12, the seething-hot core of a supernova that exploded millions of years ago. Its planets are bathed not in gentle, life-giving sunshine but instead a blistering torrent of X-rays and high-energy particles.

"It would be like trying to live next to Chernobyl," says Charles Beichman, a scientist at JPL and director of the Michelson Science Center at Caltech.

Our own Sun emits small amounts of pulsar-like X-rays and high energy particles, but the amount of such radiation coming from a pulsar is "orders of magnitude more,"

he says. Even for a planet orbiting as far out as the Earth, this radiation could blow away the planet's atmosphere, and even vaporize sand right off the planet's surface.

Astronomer Alex Wolszczan discovered planets around PSR 1257+12 in the 1990s using Puerto Rico's giant Arecibo radio telescope. At first, no one believed worlds could form around pulsars—it was too bizarre. Supernovas were supposed to destroy planets, not create them. Where did these worlds come from?

NASA's Spitzer Space Telescope may have found the solution. In 2005, a group of astronomers led by Deepto Chakrabarty of MIT pointed the infrared telescope toward pulsar 4U 0142+61. Data revealed a disk of gas and dust surrounding the central star, probably wreckage from the supernova. It was just the sort of disk that could coalesce to form planets!

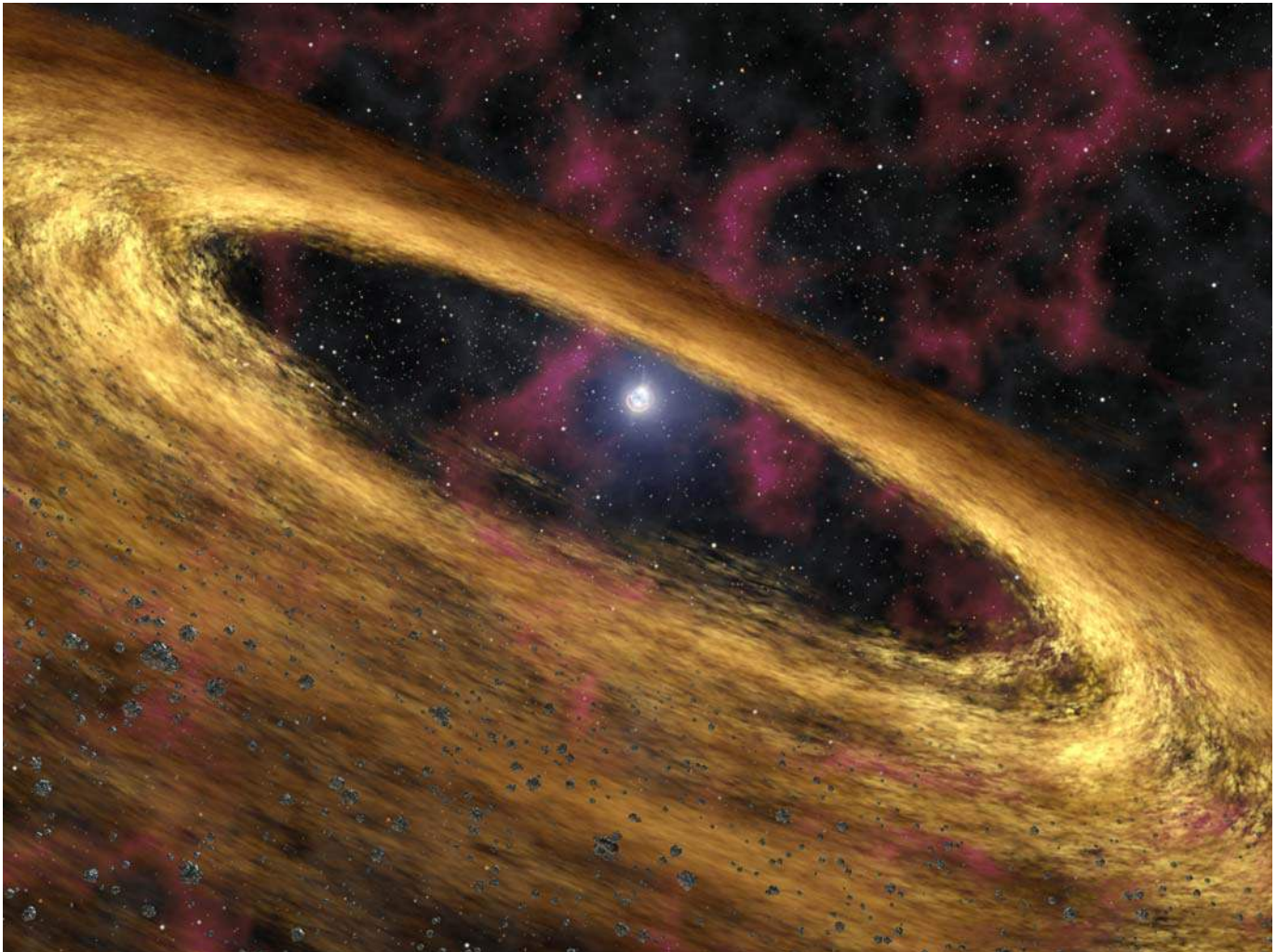
As deadly as pulsar planets are, they might also be hauntingly beautiful. The vaporized matter rising from the planets' sur-

faces could be ionized by the incoming radiation, creating colorful auroras across the sky. And though the pulsar would only appear as a tiny dot in the sky (the pulsar itself is only 20-40 km across), it would be enshrouded in a hazy glow of light emitted by radiation particles as they curve in the pulsar's strong magnetic field.

Wasted beauty? Maybe. Beichman points out the positive: "It's an awful place to try and form planets, but if you can do it there, you can do it anywhere."

Find more news and images from Spitzer at <http://www.spitzer.caltech.edu/>. In addition, The Space Place Web site features several games related to Spitzer and infrared astronomy, as well as a storybook about a girl who dreamed of finding another Earth. Go to <http://tiny.cc/lucy208>.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



Artist's concept of a pulsar and surrounding disk of rubble called a "fallback" disk, out of which new planets could form.

Ads in PAStimes

Ads in PAStimes run for a month and may be renewed on a month-by-month basis, if submitted by deadline, space permitting. Ads in PAStimes are FREE to members. All others are asked to make a small donation. Donations are to be sent to the Vice Prez who will forward them to the Treasurer.

For Sale

Meade 12 inch LX 200 GPS astrophotography package. 5 years old. Mint condition. Has many extras. Sold as package unit, no parting out. \$4,200.00 or best offer. Call for list of all the stuff it comes with; serious enquiries only please. Pickup in SE Tucson. Call 520 751-4961 Late Mornings only. Or email; starman1000@msn.com



For sale:

8" celestron celstar deluxe cassagrain telescope. Celestron 7x50 finderscope (#51614). Telerad reflex sight. Wedgepod (combination wedge-tripod). Max computer (ngc-max). After telescope

alignment, max computer is used to manually locate deep sky objects by zeroing out display readouts after selecting an object on the computer. Ricoh xr500 35mm camera with t-mount and shutter Release cable, carrying case. Light meter inoperative. Nikon F 35mm camera with t-mount and shutter release

cable, carrying case. Light meter inoperative. Basic camera adapter. 9mm AND 26mm EYEPIECES. Carrying/storage bag for all telescope components. price for all: \$800.00. E-mail: GROBINSON4@MSN.COM. 520 298 9487.



New To Newsletter

By Terri, Event Coordinator

Yes, my title says it all. We started out with ONLY PAS events in the PAS Public & Private Calendars on line. Then, someone got the idea I should post in the calendar, or someplace, upcoming events such as Grand Canyon Star Party or other large astronomy related happenings around Arizona. So, in the Private Calendar, we now have those type of events that are NOT PAS events, but that someone within our club might want to attend.

Remember, we also have the option to sign up for the AZEvents email that I post to anytime a NON PAS events arrives that I think the club members might want to attend. You send an email to our webmaster at webmaster@pasaz.org, asking to be added to the AZAstroEvents@pasaz.org list. Put in the subject line SUBSCRIBE AZAstroEvents.

Now, I figure, when there is room in the newsletter, we might include the more local events as NON PAS EVENTS, in its

own article. So, be watching for these type of events. I mean local like Thunderbird Park star party, or we could include GC Star Party in the local cluster of events happening close by. Watch for these new additions to the newsletter. Remember, if it isn't a star party hosted or run by PAS, then don't email me about details. Go to the Private Calendar on the PAS website for all the details you need to know. And Enjoy! ***

No Meeting Of The Minds For April 2010

By Terri, Event Coordinator

April's Meeting of the Minds falls on the date that we have scheduled Arrowhead Elementary School star party. If you want something fun to do that night, join us at the school. Please mark on your calendars that

the MOM's has been canceled, and hopefully we see you at the school. Prepare for the next MOM's which will be May 27th. See you there!!! ***

Telescope Donation

By Terri, Event Coordinator

Many thanks goes to Joe Collins for donating on 3/22, one of his telescopes to PAS. The telescope now resides with Rod, the Equipment Direction and Librarian. Thank you Joe!!!

Star Party at Mike's Review

by Sam Insana

On Saturday March 13th, six PAS members and one Mensa person went to Grace's Museum of American History at noon. It was very interesting and fun, resembling a mini Smithsonian adventure. Halfway through the tour, we were taken to an old cowboy bar where we were served dessert and wine or soft drinks. When we heard the swing music of the 40's at one exhibit and the rock and roll music of the 50's at another, we started dancing. Mike took some pictures of the tour.

We then went to a pizza place and ordered several pizzas and antipasto to go.

At 4 pm we had the pot luck at Mike's house. About ten more PAS and Mensa members joined us throughout the rest of the day and night, for a total of 17 parties. Several new PAS members showed up and I apologize for not remembering everyone's name. They brought some good food such as chicken enchiladas, pulled pork, appetizers, beer, etc...

We saw sunspots and solar flares, but then the wind and clouds rolled in and it was difficult viewing. We managed some

shaky views of Venus, Mars, and Saturn, a foggy view of the Andromeda Galaxy, and one clear view of the Orion Nebula. Sam and Frank set up solar viewing scopes, and then Sam and Joe set up night viewing scopes.

Because of the poor viewing weather, we went inside and played cards, watched movies on Mike's big screen TV, and had yelling contests discussing the economy.

A few of us spent the night at Mike's: Sam, Frank, Bob, and Mike. We then went to a buffet breakfast at Harrolds Corral Restaurant. Mike's bud Joe showed up around noon, and they and Frank went for Chinese food while Sam and Bob collapsed at Mike's from the morning buffet. In the late afternoon, Mike, Joe, Sam, Frank and Bob went hiking at Spur Cross Ranch Conservation area, and saw great vistas, wildflowers, cactus, and the flowing Cave Creek. After the three other guys took off, Sam and Frank hiked the Jewel in the Creek Preserve for another two hours, enjoying a spectacular sunset.

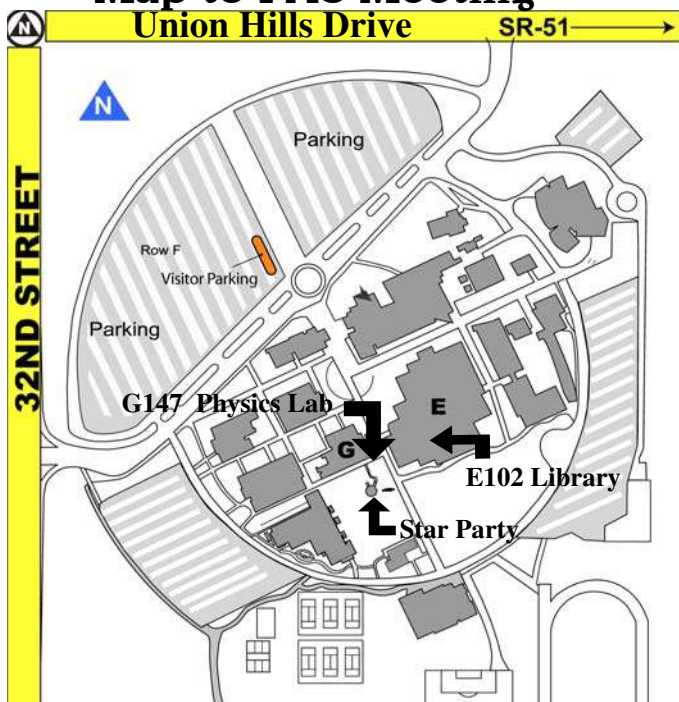
It was an exhausting yet very enjoyable weekend.

by Joe Collins

Renee, Kat and I attended Mike's star party late on the 13th. Unfortunately we missed the trip to Grace's Museum. The museum visit was attended by quite a few people: some from PAS, some from MENSA, and some just local neighbors of Mike's. Afterwards there was a pot luck with plenty of beer, pizza and enchiladas. There was solar observation in the afternoon and two scopes taking evening shots. Sam can probably give a good synopsis as he was able to spot about 10 or so objects flawlessly. However, as the night progressed it became cloudy over Carefree.

This was the night for the maiden viewing of my Meade 12" LX200 SCT... but unfortunately it was frustrating. There was still too much image-shift after a two-month wait and \$500 of repairs. I couldn't get good resolution on even one object, and there were problems with alignment and the declination motor; so I packed it in early. Unfortunately, I did not sleep over, but I did stay for a while and played poker with a few of Mike's friends until 11pm.

Map to PAS Meeting



Special Announcement

The Officers of PAS have a very important announcement to make at the April First PAS meeting. Everyone is encouraged to attend to hear this special announcement.

See page 2 for more information

April

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 PAS Meeting	2	3 VSP
4 Telescope Training Workshop	5	6	7	8	9	10 CEO
11	12	13 Chaparral HS	14	15 Telescope Training Workshop	16	17 Wigwam Creek School
18 Telescope Training Workshop	19	20	21	22 Indoor/Outdoor event	23	24 Private Star Party at Mikes
25	26	27	28	29 Arrowhead Ele- mentary school star party	30	

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To:

PAS Speaker Line-up

By Terri, Event Coordinator

2010

May 5: Chris Johnson "Astrophotography"

June 3: Dave Hellman - Topic: TBA

Sep 2: David Williams - Topic: TBA

Oct 7: Jenny Neureuther: - Topic: TBA

Send your Guest Speaker ideas to Events@pasaz.org

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What's Up For April?

By Rod Sutter, PAS President

Planets

Name	Date	Rise	Set
Mercury	04-1-09	06:55	20:04
Venus	04-1-09	07:10	20:14
Mars	04-1-09	13:05	03:08
Jupiter	04-1-09	05:13	16:46
Saturn	04-1-09	17:41	05:56
Uranus	04-1-09	05:41	17:38
Neptune	04-1-09	04:11	15:07
Pluto	04-1-09	00:50	11:144

All Times Arizona Time

April 15 2009

Sunrise: 05:56

Sunset: 18:54

Full:March 30



Q3:April 6



New:April 14



Q1:April 21

