

Volume 57, Issue 2

PAStimes

Monthly newsletter of the
Phoenix Astronomical Society
Founded 1948

PAStimes Internet Home Page: <http://PASAZ.org>

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THE NEWSLETTER

Some of you know this, and the rest may not, if you haven't recently downloaded the newest issue of the PAStimes September Newsletter. Jerry, our VP wants us to start having the Newsletter ready for pickup at the meetings. So, the October issue will be at the September meeting. The Editors, Matt and Terri aren't too eager to do this, but we are giving it a try and we will see how it goes and take it from there. Anyway, that means the deadlines for each issue are moving from the first of the previous month (ie: October issue's deadline used to be Sept. 1 but is now August 20) to the 20th of the month prior. So, the October issue will be posted this coming Sunday and thus it will be at the September 2nd meeting for pickup for those of you who attend the meeting and receive the newsletter via snailmail (post office) rather than email. If this plan doesn't work out we will go back to our original way of doing things and let the next editor tackle this plan. The idea is that by having the next month's newsletter there for pickup, the postage will be reduced, however, we only mail out about 17 copies now. And not all of those 17 folk come to the meetings, so we'd only be reducing the mailings by about 7 or so, but that is significant enough that Jerry wants us to give it a try. So, If you receive the newsletter via the postal service, then come pick up your copy at the next PAS meeting, saving the club 37 cents if it is a 12 page or less newsletter, and 60 cents if it is over 12 pages, like the September and May issues usually are. The rest of you are very much appreciated since you save the club tons of money by receiving your copies via email or the internet. Thank you.***

ASTRONOMY MAGAZINES

Amateur Astronomy Magazine - Our articles are not written by professional writers. They are written by our subscribers, amateur astronomers who know their subject and their articles reflect their love of the hobby. The articles are not edited to death so they have no life left in them. We are subscriber supported. That means that we can say what we want. If a reviewer does not like a product, we can say so, since we don't bow to the almighty advertising dollar. Each issue contains 68 pages - and less than eight pages contain advertising. We only carry enough ads to help pay the bills. We cover the subjects that you will never see in the big magazines. If we don't like a telescope or book we

say so. When we go to a star party we run many pages and dozens of photos, not a paragraph or two with one small photo that doesn't tell the real story. One article ran 20 pages and had 108 photos, just to do justice to the story. We carry articles that the real amateur astronomers of the world are interested in reading - not articles that are aimed at the news stand market of casual readers, or intended for professional astronomers.

4 issues per year - 1 yr. \$20; 2 yrs. \$36

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

Amateur Astronomy Magazine

5450 NW 52 Ct.

Chiefland, FL 32626

The Astronomer - We produce a magazine for the advanced amateur and our aim is to publish all observations of astronomical interest as soon as possible after they are made. The magazine has been published monthly since 1964 and subscribers are found all over the world.

12 issues per year - Mag. subscription 1 yr. \$45; Gold subscription 1 yr. \$75

Gold subscription includes the magazine plus either 1&2 or 3&4

(1) Early Warning Circulars: Discovery of novae, comets, supernovae, asteroids, variables and other objects magnitude 11 or brighter. Updates on such objects including UK Nova/ Supernova patrol news. (typically 7 per year).

(2) Observer's Bulletins: As per category (1) but magnitude 11 to 14. (typically 5 per year).

(3) Electronic circulars: E-circulars provide the fastest service for the announcement of all type of discoveries (distributed via e-mail). (typically 120 per year).

(4) Electronic Charts: Observing charts in graphical format and/or in FINDVGA code plus news on chart/sequence changes (via the Internet only).

<http://www.theastronomer.org/>

Payable to: The Astronomer

Send to: Peter Meadows

6 Chelmerton Avenue

Great Baddow, Chelmsford, Essex

CM2 9RE

Astronomy & Space Magazine - Highly regarded monthly magazine, containing the latest news from space and the heavens, as well as articles of enduring interest and a list

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of the events coming to a sky near you.

12 issues per year - 1 yr. \$48.35

<http://www.astronomy.ie/>

Astronomy Ireland

FREEPOST

P.O. Box 2888

Dublin 5

Astronomy Now - For over a decade, Astronomy Now magazine has provided a monthly source of information for amateur and professional astronomers alike. It is the U.K.'s best-selling astronomy magazine. A wide range of feature articles cover subjects such as observing, cosmology, the history of astronomy and space science. A series of articles each month takes an in-depth look at specific areas of astronomy and space science. Each month, Astronomy Now includes an eight-page section on the night sky, an extensive news section, readers' astronomical images, book reviews and "Absolute beginners", a two-page article for those just getting started in astronomy.

12 issues per year - 1 year \$56

<http://www.astronomynow.com>

Astronomy Magazine - Don't miss an issue of the world's best-selling astronomy magazine! Spectacular photography; Expert observing tips; Readable, user-friendly articles; Timely science reporting; Monthly pull-out star maps; And much more! BONUS! Subscribers also get unlimited access to premium content on Astronomy.com: In-depth reports, news, and extras; The latest information on this month's sky events; Customized, interactive star maps; Personal observing weather forecasts; Space weather alerts indicating auroral activity; Access to the SLOOH robotic telescope in the Canary Islands

12 issues per year - 1 yr. \$42.95; 2 yrs. \$72.95; 3 yrs. \$114.95

<http://www.astronomy.com>

Kalmbach Publishing Co.

21027 Crossroads Circle

P.O. Box 1612

Waukesha, WI 53187-1612

Mercury Magazine - Our universe grows increasingly astounding with each new discovery astronomers unveil -- and even more challenging to comprehend. Founded in 1889, the Society sponsors programs and activities for each unique part of its membership, including educators, amateur and professional astronomers, and the general public. We invite you to join the Astronomical Society of the Pacific and let us guide you on your own personal exploration of the cosmos.

6 issues per year - General 1 yr. \$48; Technical 1 yr. \$108

General includes: One year subscription to Mercury, our bi-monthly member magazine, including Sky Maps and Sky Talks; Discounts on purchases of ASP astronomy-related products from the AstroShop; Discount on ASP Conference Series Proceedings; Advance notification and special rates for our Annual Meeting where you can meet members from around the globe; Voting privileges in Society elections

Technical includes: Basic membership above for one individual; Subscription to monthly printed and electronic Publications of the ASP (*PASP is a refereed journal containing original research in astronomy. It features invited review papers on contemporary topics, contributed research articles, a section on astronomical instrumentation and data analysis, conference abstracts and summaries, and Ph.D. dissertation summaries*); Advance electronic PASP Table

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<http://www.astrosociety.org/pubs/mercury/mercury.html>

ASP Membership

390 Ashton Avenue

San Francisco, CA 94112-1722

Meteorite: The International Quarterly of Meteorites and Meteorite Science - Feature article topics include: Collecting & Collections; Scientific Research; New Falls and Finds; Asteroids; Craters; Tektites; Historical Events; New Discoveries and More!

4 issues per year - 1 yr. \$35 (free Saharan meteorite w/new subscription while supplies last)

<http://www.meteor.co.nz/>

Pallasite Press

PO Box 296

Silverdale

Auckland

New Zealand

Night Sky Magazine - This new bimonthly magazine has been designed especially for entry-level observers who want to enjoy and explore the stars. With its clear, nontechnical writing and helpful tips, you'll be star-hopping across the heavens in no time!

6 issues per year - 1 yr. \$17.99

<http://nightskymag.com/>

Sky & Telescope - Sky & Telescope captures the essence of astronomy like no other publication in the world. Written by renowned astronomers and science writers from every continent, it's an essential resource for stargazers of all levels, from novices learning the constellations to veteran telescope makers and astrophotographers. As enticing and colorful as the universe itself, each issue of Sky & Telescope is packed with award-winning astronomy reporting, in-depth feature articles, and expert tips on using telescopes and binoculars. You also get monthly star maps, incisive product reviews, a gallery of glorious astronomical images, and much, much more.

12 issues per year - 1 yr. \$42.95; 2 yrs. \$79.95; 3 yrs. \$109.95

<http://www.skyandtelescope.com>

Sky Publishing Corporation

49 Bay State Rd.

Cambridge, MA 02138

StarDate Magazine - Every issue of StarDate includes monthly star charts and stargazing highlights, plus stunning astronomical images.

6 issues per year - 1 yr. \$21; 2 yrs. \$39; 3 yrs. \$57

<http://www.stardate.org/>

StarDate magazine

1 University Station A2100

Austin, TX 78712

or Get a free subscription by joining the Friends of McDonald Observatory. With a \$50 tax-deductible contribution, you'll get a year of StarDate, free admission to the McDonald Observatory Visitors Center, Star Party passes, and more.

<http://mcdonaldobservatory.org/friends/>

TOTAL ECLIPSE OF MOON STAR PARTY

Phoenix Children's Hospital - 20th Street & Thomas

Volunteers needed - This is tentative, having to do with if it is going to work or not, thus, Call Jerry if you are going to attend. Jerry's number is 623-328-9290. The date is Wednesday October 27th, 2004 from 6pm to 10pm and

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we need telescopes to show up at the Phoenix Children's Hospital and the location of that hospital is around Thomas and 20th Street. There may be another announcement in the next newsletter if there is time to get it out prior to the date. If not, contact Jerry to be sure we are having it. In either case, enjoy the Lunar Eclipse that night! ***

OCTOBER BRINGS A WINNER & VOLUNTEER NEEDED

At the October PAS meeting, we will have a winner to the ALUMINUM CAN DRIVE. Finally, after 2 years, we will find out who has turned in the most pounds of aluminum cans, raising the most money for PAS, thus earning the FREE 2005 membership to PAS. The winner will be awarded their membership at the October meeting. In the running right now are Matt Kohl and Mike Marron. Your cans should have been turned in at the September PAS Meeting. If you still have some to turn in, Terri will take them as donations to PAS and turn them in at a later date. Please crush them to make them fit in my car easier. The winner SHOULD be present to receive their membership at the October meeting. It doesn't matter if you will win or not, PAS wins with your donation of aluminum. Speaking of the Aluminum can drive, we need someone to take over for the next two years doing this for PAS. Is anyone interested in collecting the cans, & storing them at their place. I would be willing to help them load them into the vehicle and take them to the recycling center every 1 to 2 months, but I need someone else to house them. We are planning to move in the next year, and we don't have the storage available any more. Can we have someone else take over? So, what we need is someone to store them, and it is preferred if that person can also transport them, and I can come along to help with the loading and unloading of cans at the recycling center as needed. Any takers? This venture has added a bunch of cash to the PAS fund. I'd hate to see it not continue, and just look, one happy person has received a free membership because of it. Wouldn't you like to compete again next year? If we continue it, we'd do it again for 2 years, and the prize would be membership for the 2007 year. Can anyone take over as Can Host? It just requires a location to store them, and in the case that someone forgets to label their bags, it requires an ink pen to mark the bags as you get them. Then, with my assistance, we take them down, and bug the aluminum can dude to separate the piles and weigh them separately. What I do is weigh each one, they make a list on their page, such that Matt has this total, Mike has this total and then when done, they pay me for the whole total. I just keep a tally of who has what total in pounds. It has worked out well that way. Some recycling centers have been annoyed but it is our project and if they don't want to cooperate, we can take our cans elsewhere. And Matt and I have been lucky to find coupons to increase the amount of money we get for the cans, so we actually have gotten more \$\$\$ for the cans than would have originally. We've done well for PAS \$\$\$ wise. So, we need a volunteer if we are going to continue this, and we can start this back up soon. Let's start in January, leaving us about 3 months to find a volunteer. Sooner if someone would like to take



received from Bette Wurst

over right away. Thanks to whoever volunteers! ***

NIGHTS WITH A HEAVENLY VIEW

by Laura Bly, from USA TODAY
received from Twana Fox

Several years ago, a woman approached the visitors center desk at this remote Southwestern outpost, eager to report that she had spotted something remarkable the evening before. Bracing for another overwrought tale of alien UFOs, park ranger and amateur astronomer G.B. Cornucopia listened politely as the bedazzled tourist described a "lane of white powder" spanning the heavens above her campsite. "It was my great joy," Cornucopia says, "to tell her that for the first time in her life she had actually

seen the Milky Way." Close encounters with celestial objects have been integral to life in Chaco Canyon since the Middle Ages, when the region sheltered one of the Western Hemisphere's most advanced and astronomically observant civilizations. Ancestors of today's Pueblo Indians, the Anasazi, scoured the firmament for guidance on everything from religious rituals to farming. One thousand years later, star-struck pilgrims brave long drives on a bone-rattling, unpaved road for telescope sessions and astronomy talks weaving past and present. "When you look up at the night sky at Chaco," Cornucopia says, "you're seeing a direct link between our world and theirs." Despite, or perhaps because of, light pollution so pervasive that it's estimated more than two-thirds of Americans and Europeans can't see Earth's home galaxy from their backyards, one of history's oldest pastimes is surging in popularity. Participation in the Astronomical League, a Kansas City, Mo.-based federation of primarily amateur astronomers, has doubled in the past decade, to about 20,000 members. Annual "star parties" draw thousands of caffeine-fueled stargazers who stay up till dawn, hunting for nebulae (interstellar clouds and dust) and globular clusters (concentrations of 10,000 to 1 million stars) with the fervor of birdwatchers. Many have computerized "go-to" telescopes with capabilities once limited to the pros. And whether they're Big Dipper neophytes or nerds of the night inspired by such milestones as this summer's rare transit of Venus and the Cassini-Huygens mission to Saturn, more skywatchers are searching out dark havens. The destinations may be as prosaic as a local campground or as exotic as Libya (a prime viewing spot for the total solar eclipse in March 2006), but reaction to a star-studded evening is universal, says J. Kelly Beatty of Night Sky, a new magazine for novice stargazers. "It's a cliché, but this is the stuff that dreams and imagination are made of," Beatty says. Particularly here in the Land of Enchantment. Home to some of the country's darkest and clearest skies, New Mexico has long been a magnet for star buffs. Roswell, site of a mysterious crash landing in 1947, is the UFO capital of the world, and the Very Large Array, a radio observatory west of Socorro, played a starring role in Carl Sagan's Contact. One of the best-known portals to New Mexico's nighttime marvels is Chaco Canyon, eerie, windswept desert ruins about midway between Grants and Farmington (or the proverbial Middle of Nowhere). Chaco began offering astronomy programs in 1991 and opened its own observatory — the only one in a

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national park — seven years later. Park managers have designated Chaco's night sky a critical resource in need of protection, and they have retrofitted all park lighting to enhance after-dark viewing and reduce light pollution from cities as far afield as Albuquerque, about 150 miles to the southeast. Today, about 14,000 self-sufficient visitors a year come to gaze and graze on ancient tales. (Aside from the park's 49-space campground and a bare-bones inn in Nageezi, the closest food and lodging is an hour and a half's drive away.) Given New Mexico's average of more than 300 sunny days a year, chances of scoring a cloudless night in Chaco are high. But even on a Saturday evening when the Anasazi's beloved Father Sky is cloaked by thunderheads, magic is in the air. Holding forth in the visitors center auditorium, Cornucopia introduces his audience to what he calls the "highly speculative" science of archaeoastronomy, which tries to unravel the astronomical secrets of the society that flourished in Chaco from A.D. 850 to 1250. Regardless of whether a star-shaped rock painting represents a supernova that exploded in 1054 or whether Anasazi leaders built structures in precise alignment with solar and lunar events, Chaco was "a reflection of what they knew about the sky," Cornucopia says. "Every culture needs to understand the rhythmic patterns that surround it," he says. "Most of us don't look up very often ... but a thousand years ago, if you asked, 'What is the moon doing tonight?' it would be like asking, 'Where is your left foot?' We need to redevelop a relationship with the darkness." Another New Mexican vacation spot that nurtures the relationship is Sapello's Star Hill Inn, eight cabins perched amid Ponderosa pines about an hour-and-a-half's drive northeast of Santa Fe and a few miles outside the not-so-glittering town of Las Vegas (pop. 15,000). Avid stargazer Phil Mahon opened what he calls the nation's first "astronomy retreat" in 1988, catering to skywatchers whose idea of a good time is using Mahon's high-powered binoculars and telescopes, then retreating to a hot bath, comfy bed and fully stocked kitchen. Amenities include a red-tinted flashlight for better night vision and a bottle of locally produced Flyin' Saucer wine. And for every visitor who taps star coordinates into a laptop and peers breathlessly through Mahon's 22-inch Starsplitter Dobsonian (one of 12 scopes available at Star Hill), there are folks like Mahon's wife, Rae Ann. A mythology expert, she visited after reading about the inn in a magazine. Moments after her arrival, she had fallen madly in love with the proprietor — not to mention the chance to commune with a form of nature that had existed until then only in her mind's eye. This summer's evening, just before a new moon, guests gather on the Star Hill deck for Rae Ann's killer desserts (homemade ice cream and chocolate peanut butter bars) and a star tour from Phil. A group of erudite but astronomically illiterate ex-college classmates has chosen the inn as a reunion spot and wouldn't know a meteor from a Messier object (for the record, the latter is one of the relatively bright objects on a list compiled by the 18th-century French comet hunter Charles Messier). And there's Gary A. Becker, a planetarium director who had been awake — and agog — until 4:30 in the morning, entranced by a rising Venus so bright it cast shadows. On a clear night back home in Coopersburg, Pa., Becker reckons he would be able to see 200-300 stars with the naked eye. Tonight, even with a distant lightning storm providing fireworks along the northern horizon, there could be 2,000. For the next few hours, necks crane as the heavens wheel. The stargazers admire Jupiter and its moons; note the aquamarine hue of the star Vega; and locate M27, a Messier object known as the Dumbbell Nebula for its hourglass shape. But here, as at

Chaco Canyon, the most marvelous sight of all is the Milky Way's vast "lane of white powder." It is a sign of home — and of worlds still waiting beyond our wildest hopes.***

PERSEIDS METEOR SHOWER AT LAKE PLEASANT

by Leah Sapir, edited by Terri

Terri asked: Leah, Did anyone go out to the Lake to view the Meteors last night, with that storm that came in?

Leah replied: In fact, I was going to write to tell you that you didn't miss anything. I talked to Jerry several times during the day, but in the evening he called back and said that there is no point in going up to Lake Pleasant because of the storm. At that time the sky was partly clear in the south, very cloudy (dark clouds) in the north, as seen from my house. By around 9-10 pm it was completely overcast with *thick* clouds. (sometimes, even when it is cloudy, you can see some of the brighter stars hazily through the thinner parts. that was not the case here.) But I know that sometimes the storm blows over by midnight, so I stayed home and kept checking every hour or so to see what the sky looked like, hoping that at least I would be able to watch some meteors from my back yard. At 1 am it was still overcast, so I went to sleep. Since it was still pretty cloudy in the morning, I doubt if it cleared up any between 1 am and dawn. *Terri's note:* Maybe next year someone can blow (harder) the clouds away.***

RAINY DAY SOLUTION FOR A STAR PARTY EVENING

Kevin Harcey came up with a good idea for the next star party and I thought I might share. This is really good around the time of the monsoons. Now, we would have to decide prior to the star party, and take a vote on how we want to do this, but here is his idea, and then I have an idea to go along with it. He suggests that we should, and this assuming that it isn't pouring rain at the time, still meet at the location of the star party, on the star party night, even if it is cloudy, and just have a wonderful socializing session. I think this is an awesome idea. How many times have you wished you could just get to know the people of PAS in a social setting without really having to work a telescope or stuff your face with food or have to pay attention to a speaker at a meeting? Well, why not implement this idea? If you like this kind of idea, let's think it over, and vote on it for a future star party. Let's say that if the next star party is clouded out (not rained out, of course) then we plan to meet there anyway, at sundown and visit for an hour or two and enjoy the company of everyone who attends? Now, my side note/idea was that instead of meeting there at the location of the star party, we have a central phone number we call, confirm the star party is off (such as Terri's number or Mark or Jerry - who ever is the contact person at that time) and we designate a Denny's or someplace, and meet in a dry location, incase of wet weather. This can be better in case it does rain. But it doesn't have to be an "every time" location. These are two very good ideas, giving us the chance to still have a social meeting, even if we are clouded or rained out for that evening. We could even decide on a person's home and have a movie night, or a space show night, such as watching an episode of COSMOS, or some other space related show that someone may have on video or DVD. And then make it a BRING YOUR OWN SNACK night as well, because

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most of us do bring our own snacks to the star party and would have it on hand with us at that time. And we'd still get to have the chance to get out of the house for the night. We could even meet at the star party location, and at the time when the not-so-great weather hits, take a quick vote as to whose home we run to, to enjoy warmer, dryer weather, and a movie. Any takers on this? Let's get some feedback. I like the idea. This way, the night isn't shot up by weather that couldn't be controlled, and we still have the chance to have a social event that is enjoyable by all.***

DO YOU HAVE A SPECIAL INTEREST?

by Barbara Hartman

What is it about amateur astronomy that you enjoy the most? For me, it's the thrill of the hunt. That first "Oh, there it is!" as I find a faint object never before seen in my scope, then studying it for any detail I can see. I also really love the hidden surprises of double and multiple stars; zeroing in on a lone white star with binoculars or a telescope and it becomes a dazzling blue-white sparkler with a small orange companion. Since we are members of PAS we are also members of the Astronomical League and as such we can get awards for doing what we

love. The Astro League has many Observing Clubs, there's one to suit every level, from kids and total beginners to Master Observers; even a couple you don't need a telescope for. Do you like to view the Messier objects, features on the moon, beautiful double stars or hunt down some Herschel objects? Would you like to be recognized with an award and snazzy pin for doing so? Join me in my Special Interest Group (SIG) and become an active Astronomical League Observer. Let me know at the next meeting, star party or email me at AlyaSerpens@yahoo.com, tell me your special interest, and we'll get started. I'll have sign up-sheets, hand-outs and it will be posted on my web site at www.geocities.com/AlyaSerpens if I call a special meeting to observe. You can check out the list of observing clubs and their requirements at www.AstroLeague.org. Let's get out there and Observe!***

LIFE FORMS THE BACKBONE OF 2004 FLAGSTAFF FESTIVAL OF SCIENCE

The Flagstaff Festival of Science is planning its 2004 season, September 24 through October 3, with a search-for-life theme, Life Forms! Internationally acclaimed paleontologist Donald Johanson, discoverer of the 3.2-million-year-old skeleton known as Lucy, will deliver the Shoemaker Keynote Presentation. Johanson's 1974 discovery of the world's best-known fossil has sparked excitement, controversy and a new understanding of our human origins. In addition, the 10-day Festival will explore the possibilities of life elsewhere in the universe with presentations from US Geological Survey scientists working with Mars Rover projects and astronomers following the discoveries of the Saturn Probe.

Scientists and researchers will also discuss how life forms are adapting and relocating themselves on Earth in response to environmental changes; take a look at

medical and technological advances that are improving humans' quality of life; and examine prehistoric cultures of the Southwest including new discoveries at Walnut Canyon National Monument. The Flagstaff Festival of Science reaches more than 12,000 people each year with field trips, open houses, hands-on exhibits and presentations by scientists. All events are FREE, made possible through the generous support of businesses, organizations and individuals. Supernova Friends of the Festival include the City of Flagstaff, W. L. Gore & Associates, the Coconino National Forest and Northern Arizona University. For more information, contact the Flagstaff Visitor Center at 800-842-7293 or visit the Web at www.scifest.org.***

MEETING OF THE MINDS

August 26, 2004

This was a good meeting. A log of really good things came of it. Let me give you a list of the topics that were discussed and go from



received from Bette Wurst

there. List: Speakers Needed, Running for Office, Newsletter at Meeting, New Business Cards, PAS Lectern Project, PAS Website, PAStimes Star Tours Photos, By Laws, Treasury, Phoenix Children's Hospital & Telescope. First we talked

about the Speakers. Mark was asking for assistance on knowing any of the speakers that were on the list he was working from. I had a few speakers I am contacting (haven't heard back from three that I emailed) and Jerry and Dan put their ideas in as well. This was a long discussion but many good name speakers came from it and we were all involved in the discussion. Those who attended this meeting were Don Boyd, Richard Guthrie, William & Terri Finch, Matt Kohl, Jerry Belcher, Mike Marron, Dan Heim and Mark Stephenson. The next topic was the Running for Office. Terri was showing everyone an example of a Proxy that was sent to their home for a Timeshare they own and she came up with a cool idea that she shared at this meeting. Over the next several months, as time permits and newsletter space permits, Terri will review what the Officer's positions, Director's positions and any other positions within PAS involve. Have you wondered what the job of the Vice President might be? Well, we will review that in the newsletter. Then, we will start collecting nominees for office. Yes, that's right. If you want to nominate someone for office within PAS, please let Terri know so she can start making a list of nominees. This year we are having a total change of officers. During this meeting we found out that Matt and Terri are no longer going to be Editors, Dan is leaving the Multimedia position, Richard isn't going to be Treasurer next year, and our Vice and Prez are also moving to other positions. Thus, we are going to have a total change of position within the structure of our club and we need NEW BLOOD to fill the open positions. So, read about what the position involves, consider running for office, and see if you can't help out someplace within PAS. It is better to have more people than less people in office. The more we have in office, the less work each officer has to do individually. For instance, did you know that the Editor has been doing the minutes of the meeting

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when we just found out that the Treasurer was supposed to be doing that? Well, that will be something the new treasurer will take over next year because Richard is too swamped to do it right now, and he has enough on his plate with getting the club incorporated and such, and Terri has been doing it for the last 11+ years as Editor, so why change it now. But, when things change over in May to the new officers, we will have the right people doing the job their position calls for. It makes things work out better when you have the work load spread out among several folk rather than just one person doing all of it. So, consider helping out, because within your help, PAS is going to have a problem if we don't have enough officers to fill in. So, read the descriptions about the positions, over the next several months, think about who you'd nominate, or you would run for office, and let me know so I can start working on that proxy idea. we won't officially vote it that way, but the May issue of the newsletter will have a list of who is running, with their picture, and hopefully a brief paragraph with it as to why they want the position if more than one person is competing for it (just like an actual proxy). I'll bring that proxy to the Sept meeting if anyone wants to see what I have in mind for the May meeting - but keep in mind, the proxy we received was 8 people all wanting the same position within the timeshare. We haven't had 8 people all wanting to be (for example) president in PAS, but this might be a first time! The next topic has to do with the newsletters being dispersed at the PAS meetings. I figured not many people read the newsletter and the September issue went out in the mail and so I mentioned at this meeting to those who I thought might not read it that Matt and I are attempting, but not liking it so far, to produce the newsletter a month in advance such that the newsletter can be picked up at the next meeting. So, the October newsletter (of which this article is in) will be ready for pickup at the September meeting. All newsletters not picked up will be mailed, so if you are there and you receive the newsletter via hard copy - USPS - rather than email, then pick up your copy. Please take the one labeled for YOU. Richard can take Ed's, and Mark can take J.T.'s if those people didn't make it to the meeting that night and if they can deliver for me saving PAS some extra stamps. I will also bring the extra copies with me to the meeting for those who need a hard copy, but keep in mind, we are trying to cut the cost of printing, so if you get the newsletter by email, don't take a copy unless you really need to. Save paper, and let those who really need it take it. Thanks. New Business cards was the next topic and Dan passed out those to everyone who asked for copies to be made, and everyone paid him for his expenses. Worked out great! They looked awesome besides. Then he told us of the PAS Lectern project. Really nice. He drew a picture of it on the white board (incase you didn't know, Terri brings a white board, eraser and marker each time to the meeting so that we can list the topics up there for the purpose of keeping us on track and so those who want to take notes can as we go through the topics - see what you miss by not coming to the meetings?). The Lectern looks awesome! It will have a reading light, a place for a laptop to hook into the projection system in the NEW meeting location room we are in, a microphone for those who do not have Positive Vocal Velocity projection capabilities with a PA system to help out that is built into the box, and a shelf underneath for the speaker to stash props and such that they may need. It will be completed in time for the October meeting. Dan said he can't do it by the September meeting and since he is the September speaker and prefers to walk around while talking and

presenting, he is fine with that. But for the October meeting, for Ross Tucker, there will be a wonderful new PAS Lectern for Ross to use. It will have the new PAS Logo emblem put on the front of it and I'm just eager to get a first picture of it for the newsletter when it is completed. I know it will be something really great! You'll have to come check it out. Then we went on to the topic of the PAS website. Dan really wants us to edit and change it around but he did give us some good ideas that I will try to get done shortly. We can move some of the stuff off the front page and on to other pages, that will be good. It makes editing it a bit more in the future but I think I can accommodate that request. I'll give it a try and when completed, I'll ask that everyone visit the changes and let me know what they think. Thanks for the input, Dan. If you have input about the website, send me a screen shot or a hard copy of your ideas with an explanation of what you think would be best. I'm open for suggestions and we are in the process of making the website a more user friendly and more easily navigatable place for everyone. Ideas are welcome. Then we talked about the PASTimes Star Tours photos. Barbara didn't make it to the meeting but I wanted to let everyone know that I had a moment to look at the photos we took up at Mike's home and I chose some that I liked. I then send all of them on to Barbara that I had taken. She chose 7 out of all of hers and mine she liked and printed them and will bring them to the Sept meeting. We will choose from those to make the postcards for the PASTimes Star Tours. Our next topic was the Bylaws. Richard was looking through the PAS Constitution and discovered that some of the things we do, aren't done by the book (so to speak) so he wanted to bring it to our attention that we need to get back to the way PAS was originally set up and so Dan and Richard are going to go through the Constitution and revamp it to update it. This was done back in 99, and it appears it may need to be updated again so that it fits the more modern times. Along with that topic we discussed the Treasury. The Jerry talked about the Phoenix Children's Hospital Star party. This is still tentative so he wants everyone to call him prior to going out there. There is an article about that in this issue with the date and such. He hopes we can do it, but it may still not work out based on the location of the moon at the time of the eclipse and the fact that lights may be in the way at the time of the eclipse. And the last topic that was brought up was by Mark about a telescope. Now, one more topic was talked about and it needs to be mentioned, and it was generalized so I want to share it. It was mentioned and agreed upon.... we decided that ALL business issues from this day forward will be discussed at the Meeting of the Minds (not at the PAS meetings). If you wish to discuss anything business related you must attend a meeting of the minds or speak to an officer via phone or email, or provide input at the beginning or end of a meeting such that it doesn't take away time from the speaker. We are going to set a schedule and try to stick to it at each meeting such that we get the speakers done on time and everyone knows how the meetings are run from now on. Here is the proposed plan: 7-7:30 is socializing and taking care of anything that needs to be done prior to the start of the meeting. Promptly start at 7:30 with Mark opening the meeting (Mark is current Prez. When new Prez takes over, that person will open meeting promptly at 7:30). There will be brief announcements by Prez about upcoming things, announcements by members, introductions by Officers, Greet new visitors, and have Jerry or current Vice give Star Party dates. All Dates given will be for only 1 month in advance except for special things like announcing changes in the

See MINDS, p. 7



ADS IN PAsTimes

This is the PAS advertising column & is a FREE service to all PAS members, guests, & VIP. Any Astronomy related items (books, scopes, binoculars, services, etc.) may be listed here that are being SOUGHT or SOLD. The item will only be advertised for ONE MONTH, but may be renewed each month (as needed) by contacting the Editor, by the newsletter deadline (the 1st of the month). It is requested that Non-PAS Members please make a small donation for placing your ad in both the PAsTimes newsletter and to my list of 170+ astronomy-loving email contacts. Please make check payable to Phoenix Astronomical Society and send to the return address on this newsletter. We do your advertising in hopes of great returns.

MINDS, cont'd. from p. 6

Children's Hospital situation which might be 2 or 3 months advance. Keep everything brief and refer to the newsletter for more info. Guests are given copies of newsletter as they sign in (we can have current Host - Ed- giving out newsletter to new people who don't get it via email). Then the Speaker can start promptly 7:45 to 7:50 and is given exactly 1 hour to cover their topic. Then a Q & A session is opened till about 9:15 and we are done with the meeting and out of there by 9:30pm having had about 15 minutes to clean up and gather our stuff to leave (Dan's plan). With some work, we can do this. The idea is to get the Speaker done early enough that if we have school kids attending, they can get home early enough that the parents don't feel like they are staying up too late to make it to school the next day, thus they can return the next month and enjoy another meeting with us. If we run the meeting too long, they may not come back the next month. I like the time frame. Also, this allows the speaker to get done and home at a decent time. The last item I'd like to mention is that Dan announced his plans for the Heimhenge Social. He mentioned that it will be the 2nd or 3rd Saturday of January, date is undecided at this time, and the chosen entertainment on his big screen TV will be (in his words) "An Old Disney Classic." So, you will have to attend the Social to know what he has in mind. Also, if you haven't already started, find that perfect gift for the White Dwarf Gift Exchange - Make it astronomy related and something you'd like to receive - inexpensive yet fun and/or educational or useful or entertaining or edible. See you at the next Meeting of the Minds on September 30th.***

ROUND-ROBIN STORY CONTEST (and APOLOGIES)

Do you enjoy writing stories? Would you like to win a prize for doing so? The Round-Robin Story Contest continues. Based on the introduction to the story (May 2004 issue) and the previous chapter write chapter 2 (leave it open-ended so we can add more chapters). It should be approximately 600-625 words in length. No need to bother with paragraphs. The deadline is the 15th of each month. The editors will then choose which one they feel helps move the story along the best and include it in the next newsletter (please don't make us write it ourselves). If you are the winner for that month, you MUST attend the next meeting in order to claim your prize. (Prize may be awarded the following month if your hard-luck story about why you couldn't

attend the previous meeting is convincing enough).

Matt's Comment: As it fell upon me to write the 2nd chapter of this story (because no submissions were received), I ran out of time to do so. Sooooo, now the story will be one chapter shorter than originally intended, but it leaves me (or any one else) with another month to tackle Chapter 2. Any takers?***



RESISTING RETIREMENT: EARTH OBSERVING 1

by Patrick L. Barry

The Hubble Space Telescope isn't the only satellite that scientists have fought to keep alive beyond its scheduled retirement. Scientists also went to bat for a satellite called EO-1, short for Earth Observing 1, back in 2001 when the end of its one-year mission was looming. The motivation in both cases was similar: like Hubble, EO-1 represents a "quantum leap" over its predecessors. Losing EO-1 would have been a great loss for the scientific community. EO-1, which gazes back at Earth's surface instead of out at the stars, provides about 20 times more detail about the spectrum of light reflecting from the landscape below than other Earth-watching satellites, such as Landsat 7. That spectral information is important, because as sunlight reflects off forests and crops and waterways, the caldron of chemicals within these objects leave their "fingerprints" in the light's spectrum of colors. Analyzing that spectrum is a powerful way for scientists to study the environment and assess its health, whether it's measuring nitrate fertilizers polluting a lake or a calcium deficiency stressing acres of wheat fields. Landsat 7 measures only 8 points along the spectrum; in contrast, EO-1 measures 220 points (with wavelengths between 0.4 to 2.5 μm) thanks to the prototype Hyperion "hyperspectral" sensor onboard. That means that EO-1 can detect much more subtle fingerprints than Landsat and reveal a more complete picture of the chemicals that comprise the environment. As a NASA New Millennium Program mission, the original purpose for EO-1 was just to "test drive" this next-generation Hyperion sensor and other cutting-edge satellite technologies, so that future satellites could use the technologies without the risk of flying them for the first time. It was never meant to be a science data-gathering mission. But it has become one. "We were the only hyperspectral sensor flying in space, so it was advantageous to keep us up there," says Dr. Thomas Brakke, EO-1 Mission Deputy Scientist at NASA's Goddard Space Flight Center. Now, almost three years after it was scheduled to be de-orbited, EO-1 is still collecting valuable data about our planet's natural ecosystems. Scientists have begun more than a dozen environmental studies to take advantage of EO-1's extended mission. Topics range from mapping harmful invasive plant species to documenting the impacts of cattle grazing in Argentina to monitoring bush fires in Australia. Not bad for a satellite in retirement.

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

Q: Why should you never insult an alien?

A: It might get its feelers hurt.

LOOK EVERYONE! IT'S THE FILLER PAGE

all items received from Bette Wurst

KidCity MOONMAZE

GREAT STUFF FOR GREAT KIDS. WWW.KIDCITYWORKBOOKS.COM

STRANGE BUT TRUE

The moon is a satellite of the Earth and orbits around it. The gravitational force between the Earth and the moon results in the ebb and flow of the tides in our oceans.

Just as Earth experiences earthquakes, the moon is subject to several thousand "moonquakes" each year.

The moon is approximately 240,000 miles away from Earth and getting farther away all the time! Scientists estimate that it moves about 1.5 inches away each year!

RUMBLE!!!

Check the weather section of today's newspaper. Does it tell you when you can see the next full moon?

Can you avoid the craters and rocks and find a clear path across the surface of the moon to help this astronaut back to his lunar landing capsule?

Answers: 1) b, 2) c, 3) b

- How long does it take the moon to orbit the Earth?
 - one day
 - one month
 - one year
- How long does the moon take to travel around the sun?
 - one day
 - one month
 - one year
- When did man first walk on the moon?
 - 1963
 - 1969
 - 1974

Use the News LUNAR QUIZ

WHATCHA DOIN', JEFFERY?

TRYING TO FIGURE SOMETHING OUT

WANNA TALK ABOUT IT?

K...

IF YOU WERE ON THE MOON, WHICH IS A VACUUM, AND TRIED TO SHOOT A GUN, WOULD IT FIRE? AFTER ALL, COMBUSTION NEEDS AN ATMOSPHERE WITH OXYGEN...

HEY...

CLICK

...OR DOES THE CASING OF THE BULLET CREATE ITS OWN ATMOSPHERE? IF SO, THE BULLET WOULD TRAVEL FARTHER IN THE REDUCED GRAVITY, BUT WOULD IT TRAVEL FASTER THAN IT DOES HERE ON EARTH?

BLAM

PING!

ONLY A BOY WOULD THINK OF BRINGING A GUN TO THE MOON...

SEE? THIS IS WHAT HAPPENS EVERY TIME I TRY TO HAVE A SERIOUS DISCUSSION WITH A GIRL!

PETER'S SUNDIALS

HI, BC.

TWEAK

HI, PETER.

YOU SURE ARE A STICKLER FOR ACCURACY.

YES, I TRY TO RESTRICT MY "MEAN TIME" TO A FEW NANSECONDS.

TWEAK

GOOD FOR YOU! THE WORLD WOULD BE A BETTER PLACE IF EVERYBODY DID THAT.

OH, HEY! THE ALMANAC SAYS THERE'S SUPPOSED TO BE A TOTAL SOLAR ECLIPSE TOMORROW! GREAT, EH?

YEAH...

GREAT, I'M GONNA HAVE TO TOTALLY RESET EVERY ONE OF THESE SUCKERS.

SNAP

...WELL, THEY'RE CUTE AND PLAYFUL-LOOKING.

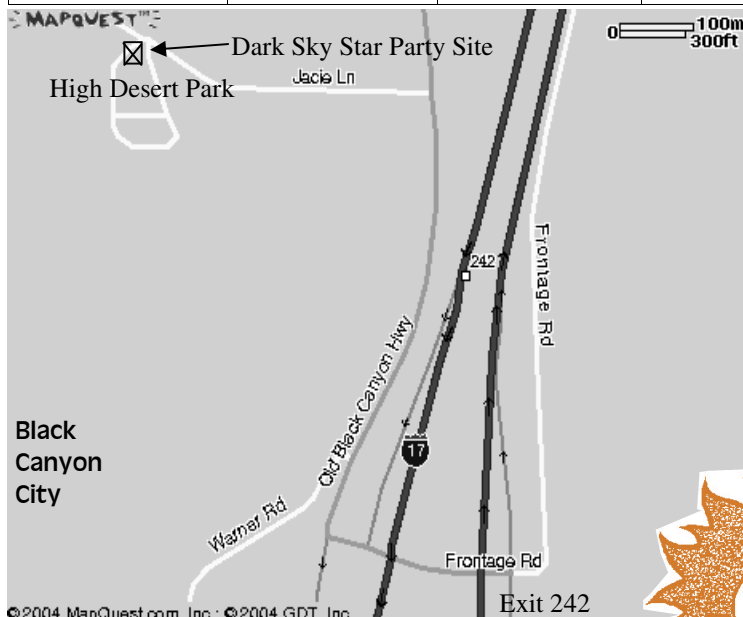
HEY! ...HOW HARD IS IT TO HOUSEBREAK YOU GUYS?

Q: What kind of music do aliens listen to?

A: Nep-tunes

UPCOMING EVENTS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SEPT. 5	6	7	8	9 Mercury at greatest elongation (18° W)	10 Bright star Regulus (mag 1.3) 1/3° to upper R of Mercury (mag -0.4) low in E before sunrise	11 Black Canyon City Deep Sky Party - see map
12	13	14	15 <i>Deadline</i> for submissions to November Newsletter	16	17	18
19	20	21	22 Fall equinox (9:30am MST) Sunrise straight E (6:17 am, azimuth 89.4°), sunset straight W (6:24pm, azimuth 270.3°)	23	24 Neptune 5° N of Moon; Flagstaff Festival of Science (through Oct. 3)	25 Uranus 4° N of Moon
26	27	28 Full Moon sets straight W at sunrise (sunrise 6:21am MST, moonset 6:23am)	29	30 <i>Meeting of the Minds</i> , 7pm, Denny's, Dunlap + I-17	OCT. 1 Adult Night Out - Arizona Science Center- Volunteers needed 6 - 10pm	2
3 Bright star Regulus (mag 1.3) 1/4° to lower L of Venus in E before sunrise; Venus 0.2° S of Regulus	4	5	6	7 PAS Meeting , 7pm, Speaker: Ross Tucker, Topic: Solar System Exploration	8	9



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PHOENIX ASTRONOMICAL SOCIETY

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PAStimes
Oct. 2004 Issue

STAMP

BRING A FRIEND

OCTOBER SPEAKER: Ross Tucker
TOPIC: "Solar System Exploration"

TO:

MAILING LABEL

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Dec. 2, 2004, 7 pm
Feb. 3, 2005, 7 pm
Mar. 3, 2005, 7 pm
Apr. 7, 2005, 7 pm
May 5, 2005, 7 pm

MEETING OF THE MINDS 2004/2005

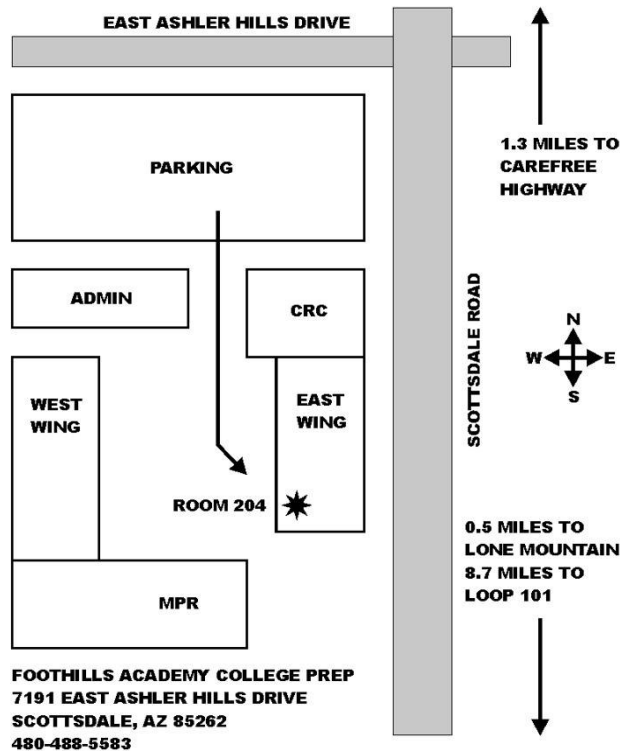
Sep. 30, 2004, 7 pm
Oct. 28, 2004, 7 pm
Nov. 18, 2004, 7 pm
Dec. 16, 2004, 7 pm

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P.A.S. Meeting Location

Foothills Academy College Prep
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Submissions to **PAStimes** should be received no later than the 15th of the month for publication in the next issue. Email submissions received at: **PASEditor@yahoo.com** or **CoEditorMatt@yahoo.com**. Items arriving too late for an issue will be printed in a future issue (if applicable). PAStimes is produced monthly by Terri & William Finch and Matt Kohl. It is distributed to the members, friends & guests of the **Phoenix Astronomical Society**. It is also circulated to business, teachers, and organizations relating to astronomy. For needed changes to the **PAS Homepages** contact William or Terri Finch, or Matt Kohl. **KCH Cartoon** is by Kevin C. Harcey. Extra Editing & Newsletter Layout by Matt Kohl (MK). Meeting & Star Party **photos** taken & **Editorial** articles written by Terri Finch (Rip). Additional materials from sources as noted. For membership info contact Terri Finch or Richard Guthrie. For newsletter submissions or to get on the mailing list (2 months free) contact Terri Finch. PAS is a nonprofit organization with the purpose of educating the public, and sharing a great hobby! If you receive a duplicate copy of this Newsletter, please pass it on to a friend and inform the Editor. **CLEAR SKIES & HAPPY STARGAZING!!!**