



PAS White Dwarf Gift Exchange
at Heimhenge 1/10/04, Be There!

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PAS TIMES

Monthly newsletter of the
Phoenix Astronomical Society
Founded 1948

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

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So Shall We Be Social At The Social?

DECEMBER MEETING REVIEW

We had an awesome meeting. With 17 people in attendance, we enjoyed the evening in a laid-back style. We started the meeting with the usual raffles. The 50/50 raffle raised \$15 and the winner was Mike Marron who donated his 1/2 back to PAS. We had a raffle for an XS Energy Drink Cooler (seen in photos) that raised \$6 for the club and was also won by Mike Marron. He said it was a good thing he got the cooler because his wife took the other one they had. William Finch donated the XS cooler to raise money for PAS. Mark opened the meeting and turned it over to Jerry who told us of the upcoming star parties. We are changing the name of the Star Parties that PAS holds monthly. We will now have two kinds. The Dark Sky Star Party is the one where the new Moon is in the sky and it is the one where you would want to go to see more Dark Sky objects out at the Lake. This date is the Saturday closest to the New Moon. The Shallow Sky will have the moon either rising or setting that night, and so the darker items won't be visible till the Moon leaves the sky. The Shallow Sky is the new name for the Cloud date. Everyone is invited to both star parties and please remember to CALL AND OFFICER so you don't



We had a nice night with A.J. Phillips and Carol Norton as two guests who hadn't been there before or for a while. We are gathered here to listen to Dan's presentation.

We viewed the Moon at the December Meeting. Which one do you like better?



Mark was standing in the way of me shooting a photo of the display with the cans of XS Energy Drinks. So, when he finally noticed me standing there, I told him I was shooting a "bum" view. He offered me HIS "bum" view in return. Should I post this on the website?



The Moon, taken by my digital camera, Sony Mavica and William.

may want to be involved in: Feb 27 and 28th, a two day event for the High Power Rocket Launch. Call Jerry for details, but it sounds like it will be a huge event. You may wish to attend and since it won't be overly hot outside, it should be a pleasant weekend! For the March PAS meeting we will have A.J. Crayon who will talk about a wonderful topic, and then tell us about the Messier

Marathon that is coming up that month. In April we have Dennis Young coming down from Sedona to share with us his awesome photos of some Aurora and other things he has captured on film since we last saw him. Bring some cash to be able to purchase his postcards. For the May meeting we will have Elections and viewing and Jerry wants everyone, EVERYONE to bring a scope if they have one.

That is also a good night for snacking as well, so bring something to share. I wish to thank those who brought snacks to this month's meeting. They were tasty. Then we had a brief announcement (shocking, eh?) from Terri (that's me)

about items around the room. We had a few handouts, plus T-shirts for sale, slide sets for sale, XS Energy Drinks for sale, and the items for the Swap Meet. Dan brought in a telescope for sale, which was promptly purchased by John Pulis. Adam brought in two eyepieces for sale. William brought in several Green Laser Pointers. Sales were good. Then Dan did a presentation on the Moon. He talked about how he got interested in Astronomy and covered some of his goals in observing the Moon. He told us about his challenge to view the MOUNTAIN OF EVERLASTING LIGHT, or Epsilon



Dan Heim is the PAS Multi-Media Director. Can anyone who didn't attend the meeting tell me what is different about Dan? He surprised us all.

Peak. It is a location where the sun never sets on the peak of this mountain. Sounds like a really cool thing to be looking for

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on the Moon. He also said that there is a CAVE that was seen in the



John Pulis is the PAS Host and here he is with his clip board in hand, talking with Mike Marron about the telescope that Dan, who is in the background, is selling at tonight's DECEMBER PAS SWAPMEET. Dan is purchasing an XS Energy Drink from William (not seen because he is behind Mike, and Matt who is pictured in the background).

wall of the Copernicus Crater. That would be something to see as well. He mentioned possibly having another Moon Marathon at his home sometime soon. I'm game for that. Keep your eyes to the newsletter for info on that event. Dan and Mike got in a discussion on how the Moon is moving away from the Earth. They say that the Moon will stop moving away when it has tidally locked itself to the Earth's Day and it will then be 2.5 times further away than it is now. And because of the tides on Earth, our days are getting longer. Everyone keeps saying they wish the days

were longer so we could get more done in one day. Dan also announced a "Teaser" for the Heimhenge PAS Holiday Social. He said that his surprise video feature is NOT fireworks this year. He will be having a special video feature that is a Sci Fi Classic and he said when you see what it is, you will say "I haven't seen this in ages." How do you find out what that Classic film will be? You attend the PAS Holiday Social on January 10, 2004 up at Heimhenge and view it on Dan's awesome BIG SCREEN TV. Arrive around 6pm and stay till whenever. It will be worth your while! Then we broke up the meeting and went outside to view through Mark's telescope, the Moon and Saturn. The viewing was awesome. The temperatures were cold and with a wind. I wish to thank those who brought items for sale to make the Swap Meet a success this year. Remember, there is NO January meeting. So, we will see you up at Heimhenge, instead!***

NOVEMBER LAKE PLEASEANT REVIEW

by Leah Sapir, edited by Terri

Mark didn't make it to the Star Party but he gave Disa and Q the instructions, and was glad to hear that I was also planning to go out so there would be at least one person with a scope. Afterwards it turned out that there were a bunch of campers at our usual place, so we went to the alternate place - the turnoff from the turnoff, about halfway from Carefree Hwy to the regular spot. Actually it wasn't bad, it was a nice flat clearing just off the road. The sky was partly cloudy, and after a while I started to get condensation on my telescope - everything looked fuzzy and had a halo around it. But I did manage to show them Orion, Andromeda, Mars and Saturn. With the condensation I wasn't able to locate anything dimmer, such as the Crab Nebula. I also gave them a guided tour of some of the constellations that were visible. Are there any good solutions for that type of condensation? And anyway, why should it condense when the scope is as cold as the air around it? Anyway - we stayed till around

midnight when the moon came up. Disa was getting cold (she didn't realize that you have to dress warmly for something like this). Q didn't seem cold and he was wearing a t shirt - amazing! I was dressed warmly enough, but there wasn't any point staying after the moon was up. So I showed them the moon and then we packed up.***

IMPORTANT INFORMATION FROM THE MEETING OF THE MINDS

Date was Nov 13, 2003

Location was Denny's on I-17 and Dunlap

In attendance were Mark, Adam, Matt, Kevin, Mike, William, Terri and Q. Thanks to all who attended and made a difference at this meeting. We had a Treasury update from Adam. The Sky and Telescope subscriptions will push the price of Sky & Tele for next year up by \$3. That will be reflected in the new 2004-2005 dues sheet. We were discussing Fund Raisers, and Mr. Telescope said they'd accept flyers to pass out stating to contact PAS for classes on how to use your newly purchased telescope. So, Matt and Terri will be designing those flyers after the next Meeting of the Minds, with a discussion on the format and what to include in that flyer. We discussed speakers ad the paying of speakers, to be able to afford to purchase more experienced speakers in the future. Any speakers you'd like to hear from, please get that info to an officer prior to the next Meeting of the Minds so they can be put on the list of contacts and we can make it happen for the club. We voted to make Dennis Young an Honorary Member of PAS. This will take effect the first of the year. We want to set up a monthly Meeting of the Minds meeting and it was discussed to make it the LAST Thursday of each month as to be able to discuss things one week prior to the meeting and have those things resolved by the time the meeting rolls around. Anyone who wishes to join us at those meetings needs to RSVP with Terri so that we can RSVP our meeting room at Denny's with plenty of time. Right now, the next Meeting of the Minds is being discussed, and there will be a separate article about that in this newsletter. Jerry wanted to put together a Saturday morning Field Trip to Kitt Peak. Those interested should contact Terri and we will pick a date to do that and let you know. It was also discussed that the members of PAS



Cartoon received from Bette Wurst

should be recognized on their birthdays. Please, when you get the chance, provide Terri with your name, your month and day of birth. You need not disclose your birth year. That isn't needed. And each month in the calendar we will celebrate some member's birthday! Now, we are looking for ideas on

upcoming Speakers. If you have someone you want to hear from, please let us know, ASAP. We would also like to set up for a Challenger Space Center Field Trip sometime soon. Those interested, contact Terri so we can have a head count and see if it is worth setting up this type of Field Trip. Terri has discount tickets to get us in, and there may be more of a discount in numbers. We have to make Reservations as

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well, I was informed. Any other input is welcome, or come to the next Meeting of the Minds to help us make more decisions. Thanks to Leah and Dan, who couldn't make it but did put their input into the discussion via the internet to Terri's email, and forwarded to Matt for printing, because the Finches still don't have a hooked up, working printer. The input was discussed. Thanks to all who attended. I hope to see a larger turnout at the next MEETING OF THE MINDS.***

PHOTOS NEEDED

Hello. Yes, at the last meeting, we took a lot of photos of our newest officers, and the returning ones. However, we aren't done. We need a good photo of the following individuals for the website: Ed Garbero, Kevin Harcey, William Finch, Terri Finch and Matt Kohl as well as Dan Heim. The photos I took didn't come out as expected, and some were blurred (like Ed's). So, the plan is that the next time we see you, please be prepared to have your photo taken or email me the one you wish me to put on the website (Dan, Matt?). Also, as usual, the newsletter is always looking for folks, members or not, to submit items of interest.

I'm sure you get tired of my attempts to entertain you with the articles I send your way. Send me your astronomy photos, even a scenery photo with the moon or a comet in the background is welcome. Recently Q sent me an awesome photo of the moon that he took the night of the meeting. I love to see what you have taken. And don't forget, this is YOUR newsletter. Please, write reviews or articles, do book reviews, or write poetry or stories. Send them my way. As long as they are Astronomy related, they are welcome in the newsletter. Thanks so much and I hope to see more submissions over time.***

YOU ARE INVITED!

The PAS Holiday Social will be held on January 10th, 2004 up at Heimhenge. See map on back page for directions and if you get lost, call Dan at the number on the map. You will NOT want to miss this event. Every year, instead of holding a January PAS Meeting at our normal location, PAS holds the



Digital image through Mark's Six inch refractor with Q's Sony Cybershot.

holds the



PAS Social, hosted by Dan and Sandi Heim. This is a time to get to know the members of PAS. Most of us know each other in the dark. But on this night from 6 to 10pm, we will gather in a Social setting playing Darts, eating things other's bought or made, enjoying drinks, watching a special BIG SCREEN presentation supplied by Dan, and winning door prizes and swapping gifts at the WHITE DWARF GIFT EXCHANGE. We meet at Heimhenge, which is Dan Heim's home in New River (north on I-17). He has a wonderful big screen TV for which he uses to do a wonderful presentation of something (always a mystery until you attend). A few years ago it was movies, and some years it was Pyrotechnics (fireworks); he surprises us each year. Dan & Sandi are wonderful hosts for the party. For the Social, you will want to plan to bring a food to share & possibly drinks. In the past we have had hot wings, platters of foods, hot sauce (done by William - beware!), all sorts of

cookies, candies, and other home made items. You don't need to make an item yourself if you don't have time, but the home made items in the past have always been delicious. Plan to bring a dish to share, and Dan will provide the drinks, unless you want something special. We have an on going Dart game, usually ran by the young adults (under 18) during the night. You join the game and when

it is your turn to play (I think it is called Around the Clock), you go up and shoot your three darts and then give the next person a chance. The object is to be the winner and get a prize. Prizes are donated by those who attend. We can use ONE DART GAME PRIZE if anyone wishes to donate. Extras will be used for 2nd and 3rd place. Another thing we do is have 2 drawings. One drawing (all of this is free, or in exchange for the gifts you bring with you) is for everyone and is the MAIN DOOR PRIZE. We could use a donation of a gift for that, please. And the other drawing is for the SERIOUS ASTRONOMERS ONLY prize. Each of these has different color raffle tickets and you receive those as you arrive at the party. My favorite event is the gift giving (most places call it a White Elephant exchange, but because we are astronomers, we call it the WHITE DWARF Gift Exchange. And keep in mind, it isn't really set up to be JOKE gifts, but rather serious astronomy related gifts. We don't ask that you spend too much on a gift. Up to but not exceeding \$20 per gift is well acceptable. Most items can be found for under \$10. Here is how the White Dwarf works: Bring a gift, preferably astronomy related (Examples: hot chocolate packets in an astronomy mug, red filtered flashlights, star charts, books on astronomy or about astronomy or about people in astronomy, astronomy games, puzzles, fun things, pictures, paintings, clothing, astronomy shaped candy, etc). Bring it wrapped and preferably disguise it so it looks super interesting so no one can tell what it is by looking at the wrapping. Then, put it on the table where the rest of the gifts are and pick up a raffle ticket to show you are involved in the gift exchange. When it comes time

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to do the exchange, usually right before or right after the surprise presentation by Dan, you will be drawn as to what order you get to pick a gift from the table or steal one from someone else. The fun of this exchange is to STEAL other people's presents. I usually go for the biggest one. All gifts will be taken from the table prior to anyone opening any. DO NOT OPEN THEM. The fun part is stealing one from your neighbor, and then having it stolen from you when the next person has a turn. The rules of the game will be told to you at the start of the game. Then after everyone has gotten a gift, we will open them one by one. You need your raffle ticket again, as I will draw who opens the gifts in that order. In the gift, if you wish to let the person receiving it know who gave it to them, you can put your name. Most of us do not do this, just because it is more fun to be a Secret Santa. When we complete the White Dwarf game, you have a few

options. If you do not like the item you received or do not need it (for instance it is another red flashlight and you already have 3 of your own) you can then leave it on the exchange table (the table that had the gifts) and during the night, check back a few times to see if there is another gift you'd rather have. Remember, to be fair, everyone who brings a gift gets in the game. Everyone who brings a gift, leaves with a gift, so don't leave anything behind at the end of the night. If you do not get your item exchanged, recycle it back into next year's White Dwarf and hopefully the next person receiving it, next year, will need that item. The Social will begin at 6pm, and it is preferred that everyone start arriving as early, but no earlier than 5:30. Best parking is for those who arrive earlier. We have had so much fun at the PAS Socials in the past that we want every PAS member to attend. This is your After Christmas Christmas Party. We want to wait for all the Christmas rush to settle down, and then have one more event. It is best to start looking for that special White Dwarf item NOW than wait to the

Sonoma Skies, August 2003

The Semi-Sirius Astronomer

by Herb Larsen



"You know, I'll bet these events stir up so much dust they can be seen from space."

Don't get lost on your way to the PAS Social. Consult the map on the back page.



"For heaven's sakes, Elroy! . . . NOW look where the earth is! . . . Move over and let me drive!"

last minute. Also, you need to BRING ONE GIFT PER PERSON attending, if every member plans to get involved in the gift exchange. For my family I need 5 gifts: William, myself, Bette, Ed & Bruce. I bring 5 and we get to leave with 5. As a point of interest, I had my shopping for this done back in June. I just keep an eye out for that special, really cool item that is affordable to me, and pick it up when I see it. Last year, I waited longer and had to rush to find something cool. The gifts can range in prices, but it is preferred that an item no less than \$5 is given. There is no upper limit. I thought of making a price range,

but that is hard to do. Some Star Charts, for example, cost way too much to say - your upper price limit might be \$20. Maybe next year we can do something like that. DO you have an idea to share on this, contact me about it. Thanks. It is a fun filled night you will definitely want to attend. List of items to be sure to bring: A jacket,

food to share, one present wrapped per person involved in the game, extra prizes as donations for the night, drinks if needed, everyone you wish to attend with you, and your dart throwing arm. See you there!***

WHITE DWARF GIFT EXCHANGE

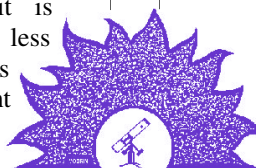
It was brought to my attention that several people think that they HAVE TO bring a gift or food to the Social to be allowed to attend. Let me straighten out this misunderstanding. First, it would be nice to have everyone bring a dish (one per family) large enough to feed about 30 people. This way you

would not feel guilty for eating someone else's food while at the social. We usually have plenty of food so if you really can't afford to or don't know what to bring, still come eat and drink with us. You are welcome to join us at the Social. The second item that I have gotten feedback on recently is the Gift Exchange. It is NOT a requirement to BRING a gift to attend the Social. However, if you wish to be IN the Gift Exchange, you must have a gift to exchange. You may come and watch the antics of everyone else fighting for gifts, or you may bring a gift and get in on the fun. You also do not HAVE TO play darts. We ask that you do, it is all in fun, and the winner does get a prize (assuming someone brings an extra prize with them for that purpose). Remember, you may also donate an extra gift for the Dart prize, and for the main Door prize. The door prize is open to everyone in attendance. Everyone has an equal chance of winning the designated door prize. There is also, usually, a very Astronomer related prize, ONLY for those who are serious observers. IF we have one of those prizes donated this time, we have a drawing for that. And for that prize, you HAVE to be a serious observer, with binocs or telescope. That prize usually includes the viewing and then the reporting of the findings back to the club members at a future meeting. That is why it is only for serious observers. Now, let me review.... We need a donation of a prize for the Dart game, a prize for the main Door Prize and a prize for the Serious Observer prize. If you wish to donate, just bring it wrapped to the Social and let me know what it is when you arrive. Extra prizes will be given away if there are any. Thus, if someone brings a dart prize and 2 others do, then three prizes will be awarded that night. The more the merrier, and we really appreciate all the prizes that are brought, even for the Gift Exchange. So, even if you don't have food to bring, or a gift to exchange, COME ANYWAY and have a great time with us up at Heimhenge! See you there!***

PAS YAHOO! GROUPS

You will want to be there to be involved!

For any of these groups, you will have to create a Yahoo See GROUPS, p. 5



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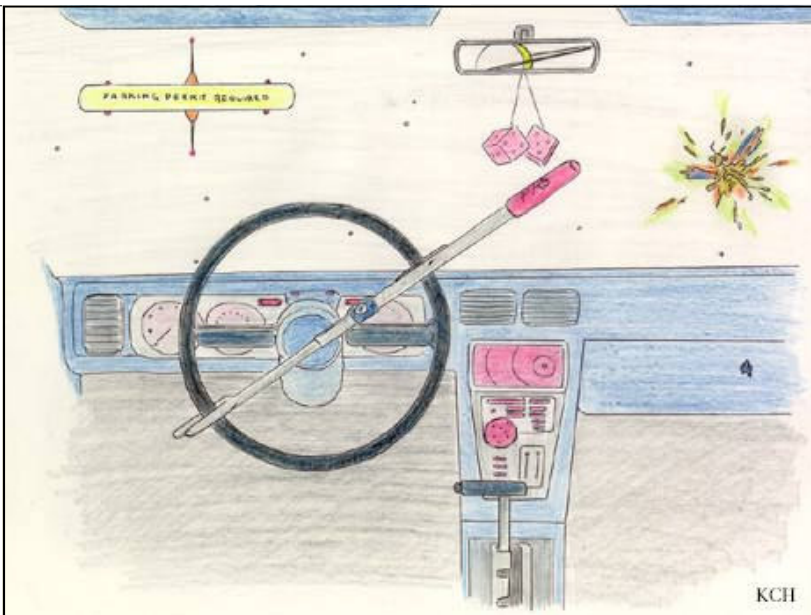
ID by opening a Yahoo Email account, and then sign into that account and ask to be invited using the options below. The neat thing about Yahoo Groups is you can choose to NOT receive emails from that group, but instead, go to the group to read what has been posted. I love this option and if you are like me and have too many emails coming in to begin with, this is the option for you. Then, every 2 or 3 days, I pop into my groups and see if there are any new postings that I can input on. Below is the list of the PAS groups, what they are for,

how to subscribe, and who can be involved. I suggest you get on all the groups with PAS that you are allowed to be on, and get to know your Astronomy club and its members. We need your input and hope you will enjoy your stay with us. **PASAZ-ProjectDiscussion** is for the discussion of upcoming projects that PAS is involved in. We are currently discussing the Arizona Science Center event on May 15, 2004 in which we are creating interactive/independent display boards. This group is open to everyone - PAS Member or not. To join this group, email: PASAZ-ProjectDiscussion-subscribe@yahoogroups.com. **PASAZ** is open to anyone, world wide, who wishes to discuss astronomy. We invite everyone so we have a better chance of discussing and learning from each other. It would be really cool to have some Southern Hemisphere people join us and describe what they experience. To join this group, please email PASAZ-subscribe@yahoogroups.com. **PASAZ-Members** is for PAS Members only. This group is designed for the purpose of the PAS Members to have discussions and ideas shared



Mike Marron is the PAS P.R. Director. He will be assisting the Editor in contacting many resorts to try to find the ones who wish to hire PASTimes Star Tours for jobs. Kevin Harcey is the Co-P.R. Director and will be assisting as well.

about the function of PAS. We need the member's input here, instead of taking the time to have these discussions at the meetings where new visitors may not wish to know the situation that is personal to the club members. (To become a PAS member, email Terri.alienstarstuff@yahoo.com) for a Dues Sheet. Those who are a member, should request to join at PASAZ-Members-subscribe@yahoogroups.com. **PASAZ-NL** is for the purpose of all PAS members to receive the Newsletter electronically. We invite guests to receive the newsletter for 2 months for free, and we invite VIP to download the newsletter for a specified time. It is set up to be a convenience and it saves PAS lots of money on printing and stamps for sending out the newsletter. If you are a PAS member or not, get on the



The PAS Club

list. This list does not allow for Posts, so you won't receive any email except the once a month email stating the newest Newsletter is available for download. To join, email PASAZ-NL-subscribe@yahoogroups.com. This is the Newsletter receiving group, and everyone should be there! Any questions about the groups can be sent to Matt at coeditor matt@yahoo.com.***

SPACE CHEF MAKES OUT-OF-THIS-WORLD HOLIDAY TURKEY

from CNN.com
received from Steven Saline

As manager of NASA's Space Food Systems Laboratory, Vickie Kloeris and her staff spend their

days developing, testing and packaging meals for astronauts. The goal: variety, nutrition and flavor. No more dry meal cubes, especially during the holidays. So when astronaut Michael Foale and cosmonaut Alexander Kaleri opened their meal packets on Thanksgiving Day, they found turkey and all the fixings, even as they orbit 240 miles above Earth aboard the international space station. Did it taste like a home-cooked meal? Almost. "It's good. It doesn't taste a lot like a fresh carved turkey but you can't do that in a pouch," Canadian astronaut Chris Hadfield said after sampling some of the food. At first look, the food -- which can be freeze dried or thermostabilized, a process similar to canning -- is not the most appetizing sight. The presentation -- in clear or silver pouches -- is a bit sterile and the food can resemble the brownie cubes and chocolate pudding in a tube that astronauts during the Mercury and Gemini programs of the 1950s and 1960s ate.

Popular shrimp

But once the meals are rehydrated with water or heated, they taste surprisingly good. Foods like shrimp cocktail -- the most requested item by astronauts -- or green beans and mushrooms, or split pea soup have the look, flavor and thickness of items eaten at any restaurant. Better yet, the food remains good in the packages for up to two to three years. "We want foods with lots of texture and different colors," said food scientist Donna Nabors, wearing a white coat and plastic gloves as she prepared a large tray of shrimp fried rice in the lab's kitchen. The dish, prepared with water chestnuts, peas, carrots and various spices, was placed in a machine resembling a large clothes dryer for a five-day freeze-drying process. Then, it was vacuum sealed in individual serving pouches. Lt. Col. Yang Liwei, the first man China sent to space, ate such things as one-bite nuggets of spicy shredded pork, diced chicken and fried rice during his brief flight in October. Having a variety of meals is important to the astronauts, Kloeris said. Astronauts on the space station have a 10-day meal cycle. Their menu, chosen from a list of more than 250 food items, is split between American and

Russian food. "We don't want them to suffer from menu fatigue," she said. "More variety on the menu is something we've heard from every station crew that has returned. It helps them psychologically." Hadfield said on longer

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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.

GREEN LASER POINTERS FOR SALE

This top quality green laser pointer makes an immediate impact. Presenters using green lasers are immediately perceived as ahead of the pack in both style and technology. Housed in a plush velvet case, this is a great choice for any purpose. Constant output. Powered by a Sony diode with a lifetime of 3000-5000 hours, it projects a green dot up to an incredible 2 miles away. It so powerful that the beam itself can be seen for several hundred feet in darkness. That's why astronomers use it to point out constellations and stars in the night sky, the US Army uses it for training exercises, and executives at all levels use it to enhance their prestige. Anyone can use it for fun.

SPECIFICATIONS

Output type: constant
Output Power: <5mW,(Class IIIa)
Wavelength: 532 nm
Polarization: Linear (50:1)
Beam Dia. at Source: 1.1 mm
Output Variance: 10% after 20 min.
Beam Divergence: 1.2 mRad
Dimensions: 5.85 in. long, 0.54 in. dia.
Switch: Push Button
Operating Lifetime: 3000 - 5000 hours
Batteries: 2 X AAA (incl.)
Range: 9,500 ft (2800 m) in darkness
Class: IIIa

Each Laser is \$100 with batteries and carrying case. Members of the Phoenix Astronomical Society get special pricing, call for details. To order your Laser, call William at 602-561-5294.



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missions, like living aboard the space station for several months, food can become an important part of an astronaut's daily routine. "There's lots of good food. At meal time, you look forward to it," he said.

A fishy challenge

Space station crew members, who have three meals a day plus a snack, heat up some of their food in a warmer that looks like a silver suitcase. Each meal costs an average of \$100, mostly due to packaging and testing, Kloeris said. It can take six to eight months for the lab to develop and test a

new food item. In the last three years, the lab has developed 50 new items, but as with any cook and kitchen, there are culinary misfires. A swordfish dish prepared with a tomato sauce proved unpopular with many astronauts. "One of the complaints that crew members have about fish on orbit is the smell. We thought maybe the tomato sauce would mask the smell," Kloeris said. The astronauts said it made it worse, she said. "We haven't given up on fish but we have to come up with a different formulation," she said.***

2004 TEXAS STAR PARTY - SIGN UP NOW!

The great tradition of dark sky observing continues with the 26th Annual TEXAS STAR PARTY, May 16 - 23, 2004! TSP WILL NOT BE MAILING A FLYER this year, so keep this e-mail or print it out!

1. You should submit a Registration/Reservation Request Form to ENTER THE TSP DRAWING before January 19, 2004. This will provide you the highest possible chance of being selected as one of the 700 people who will be able to attend TSP this year. <http://www.texasstarparty.org/draw.html> or fill out the Request Form immediately at: <http://www.alphadata.net/cgi-bin/forms/forms.cgi?form=3>

READ THE REST OF THIS BEFORE SUBMITTING YOUR REQUEST.

2. Participants at the TEXAS STAR PARTY can select from a variety of accommodations on the Prude Ranch, including bunkhouses, private cabins, trailer hookups, and campsites with convenient bathhouses. All accommodations include access to a TV lounge, a western-style dining room, and an indoor swimming pool.

And of course the convenience of the observing fields! For rates and more information on ranch and nearby accommodations, please visit: <http://www.texasstarparty.org/travel.html>

3. The TSP Registration Fee (DOES NOT INCLUDE your accommodations) is \$50/person if you preregister before April 15, 2004. (Each additional family member is just \$30 more.) For more information about TSP Registration rates and policies, visit: <http://www.texasstarparty.org/tspreg.html>. The drawing for names is in late January, and if your name is drawn you will get a

TSP Registration Form (and optional Prude Ranch Reservation Form) to send in with your payments in February/March. **SIGN UP NOW!** Questions? Visit our website for the latest and complete details! <http://www.texasstarparty.org/> We look forward to seeing you next May! Sincerely, the volunteers for Texas Star Party***



Here is the sign on the wall in the room we meet in. I thought it would be nice to put it on the website with the location map of our meeting place.

A BOOK AS BIG AS THE UNIVERSE

Travel the cosmos in only 365 days

by Richard Stenger, from CNN.com
received from Steven Saline

A glowing cloud resembling a spider, men riding a sports utility vehicle 250,000 miles from the nearest gas station and a fighter jet bursting from what looks like an egg are a few of hundreds of eye-popping pictures in a new book that showcases the best snapshots in the galaxy and beyond. Robert Nemiroff and Jerry Bonnell, authors of *The Universe: 365 Days*, are self-professed mild and lazy guys, but they have nonetheless created perhaps the largest and most celebrated collection of space images on the Internet. The book culls the best of the best from their Astronomy Picture of the Day Web site, a constant stream of pictures from Earth and space that draws more than one million hits each week. The astronomers recently took a break from picking pictures for APOD, which mirror sites translate into ten languages, to talk to CNN.com about their book.

CNN: Nebula pictures. Many space fans just adore them. And there are quite a few beauts in the book. Why the fascination with nebulae? Are they the orchids of the space picture world?

NEMIROFF: Some nearby nebulas can just be resolved into so much detail. Many nebulas happen to be places where luminous gas, dark dust, reflecting dust, and young stars all interact, which can lead to tremendously intricate complexity and texture.

CNN: Many images are false-color images. Some critics think that false-color images detract from the science, that they are merely done to increase the beauty value. Do you disagree? Why or why not?

NEMIROFF: All perceived color is false color. Eyes, computer monitors, digital cameras, film -- they are all different from each other and even different from other eyes, monitors, etc. Things only begin to appear the same when standardized filters are used, and that's when science begins. Additionally, assigning red, green and blue as digitized color to, for example, radio, optical, and ultraviolet light may create something no human eye would see, but might highlight something very interesting scientifically. Therefore, the "representative color" that is used for many pictures adds to, not detracts from, the science, in my opinion. Also, how cool is it to see beyond the normal color range for humans!

CNN: How do you find your pictures? Are there rituals you go through? Do you search the Web? Visit a regular list of Web sites, or is your e-mail brimming with images from APOD wannabes each day?

BONNELL: Yes to all of those. We also get a tremendous number of excellent images submitted for consideration. The submissions by "amateurs" are often equally if not more impressive than the major observatory releases. I often regret that I actually have to pick only one image for a given day and that there are only 365 days in the year.

CNN: How do you winnow the candidates down to one each day?

NEMIROFF: If either the mature scientist or immature teenager inside me says "cool," I'll try to APOD it. Usually I'll recognize an APODable picture in the first few seconds. And the best APODs made it into our new book!

CNN: How do you two divide up responsibilities?

NEMIROFF: Usually I do Sunday through Tuesday, and Jerry does Thursday through Saturday. The person with the least convincing sob story about how unbelievably busy they are gets to do Wednesday.

BONNELL: Sob ...

CNN: Have you ever chosen purported UFO pictures or other controversial pictures?

BONNELL: If images of the "face on Mars" or Apollo astronauts walking around the on moon are considered controversial, then I guess these would count as part of the few. Those pictures tend to generate some e-mail from conspiracy types. Of course, as a skeptic, I've always thought that the face on Mars is really a butte.

CNN: More than 1 million hits a week. Can you elaborate on that?

NEMIROFF: Our largest demographic is the intelligent professional -- some smarty with a desk job who checks us out as part of their daily or weekly routine. APOD is also popular with astronomy instructors and students who want to find a quick picture of, say, Jupiter, and want to understand what they are seeing. We get a surprising amount of e-mail from parents and grandparents who take discussing APOD as a family activity that can involve everyone.

CNN: Did you ever think APOD would be this popular? Why do you think it is?

BONNELL: I'm glad that it's popular, but I'm not sure I completely understand how it got that way. I know APOD is entertaining, though, because it entertains my kids. On one occasion my 14-year-old actually said he was impressed by it, so I consider that a major victory. Putting together APODs is a little like being a kid again and reminds me very much of the things that inspired my own early interests and curiosity.

CNN: Where did you meet?

BONNELL: We met, and shared an office, at NASA's Goddard Space Flight Center in Greenbelt, Maryland. I'm still at Goddard, but Bob has moved on to Michigan Tech. University. However, he remains my tallest former office mate and collaborator by about 2 inches.

CNN: How can we narrow down the images to just a handful for an image gallery with this interview? It seems impossible!

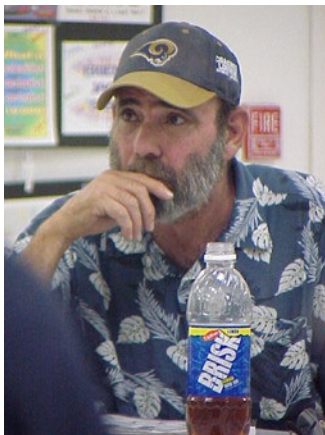
BONNELL: I'm happy to say that picking out a spectacular image is not at all a problem. Whenever I'm asked what my favorite image is from the book, I just open a copy and start to flip through it until one catches my eye. I do have trouble stopping, though.***

COMET-HUNTING CRAFT HAS QUARRY IN ITS SIGHTS

from CNN.com

A comet-chasing spacecraft has its quarry in sight, weeks before it is to swoop past the frozen ball of rock and ice to capture samples of its glittering tail for return to Earth. NASA's Stardust spacecraft successfully photographed the comet Wild 2 (pronounced Vilt-2) on November 13, weeks before expected, mission members said. The comet was 15.5 million miles away at the time. "Christmas came early this year," project manager Tom Duxbury at NASA's Jet Propulsion Laboratory said. Stardust will continue to photograph the comet over the next month, leading up to its January 2 flyby of the icy body. The images greatly aid Stardust mission members as they fine-tune the spacecraft's path as it closes in on Wild 2, NASA said. During its close encounter, engineers and scientists hope the unmanned probe will fly within 186 miles of the 3.3-mile wide comet. During the flyby, scientists hope to collect and trap samples of the dust streaming off the comet. The spacecraft will return to Earth in 2006 to drop off the samples in a parachute-equipped capsule. The \$200 million Stardust mission was launched in 1999.





This is A.J. He was at Barbara's Star Party with us for the Mars Odyssey. It is funny, but when one meets someone in the dark of a star party, the name sticks, but the face just isn't there. A.J. introduced himself to me and I was lost as to who he was till I thought about it all the next day. Then I realized where I met him, in the dark. Welcome to PAS, A.J. Phillips.



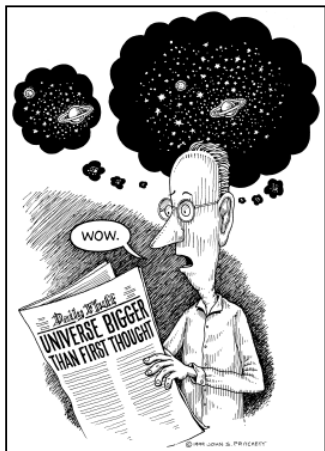
Jerry did this pose for me. Said he wanted this one on the website. Thoughts anyone?



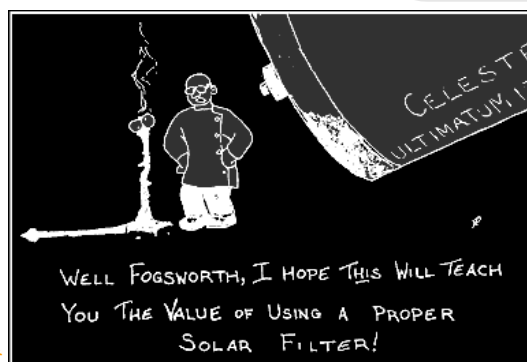
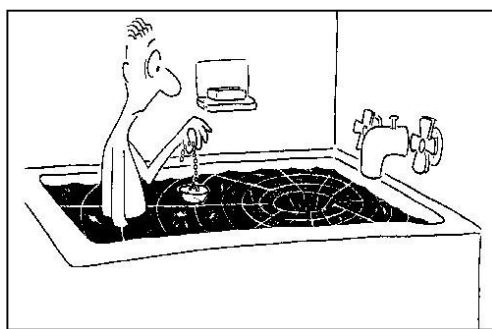
Dan filled in as an impromptu speaker about the Moon. He had some interesting stories to tell about his childhood and become interested in astronomy. Afterwards we went out to view through Mark's scope, the Moon and Saturn. It was a chilly night, but the seeing was pretty good, and mostly everyone who bought Green Laser Pointers from William, played with them outdoors that evening.



Adam Bloomer is the PAS Treasurer. He just hates to have his photo taken by me (can you tell?)



Here is the telescope Dan was selling at the PAS meeting's Swap Meet. John Pulis purchased it. In the background we see the Yellow XS Energy Drink Cooler that was won by Mike Marron in a drawing.



And Other Stuff Too

UPCOMING EVENTS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
DEC. 14	15	16	17	18	19	20 <i>Lake Pleasant Dark Sky Party - See map;</i>
21	22	23	24	25 Christmas Day	26	27 Chanukkah <i>Lake Pleasant Shallow Sky Party - See map High Power Rocket Launch - Call Jerry for details</i>
28	29	30	31	JAN. 1 New Year's Day <i>Submission deadline for February newsletter</i>	2	3
4	5	6	7	8	9	10 <i>PAS Social @ Heimhenge</i>

ASSTON PICS



There were many dragon flies around the pond at the Arboretum and this one came, sat on the ground, and stayed long enough for me to decide to take its picture. I think it was sunning itself. *From the 2003 Flagstaff Festival of Science*



While we waited for one of the tour guides to take us on a walk, we gathered in this wonderful area outside the gift shop of the Arboretum. *From the 2003 Flagstaff Festival of Science*



John Pulis is our Host and he has his clip board in hand, ready to greet everyone who attends the PAS meeting, get them to sign in, so that no one misses out on the next PASTimes Newsletter. John has done an awesome job. Thanks John.

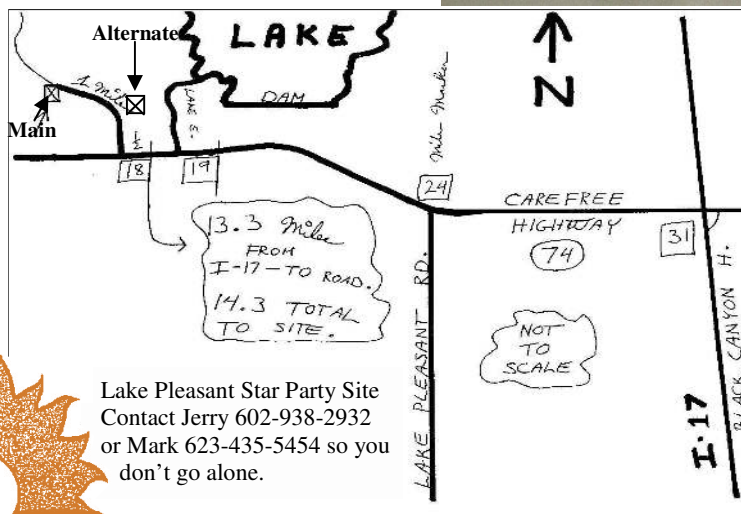
Here we have the eyepieces that Adam was selling. They were being sold for an awesome deal. If you are interested, I believe he may still have them available, so give him a call.



Hugh introduces the crowd to how the telescope is run from inside this control room. *From the 2003 Flagstaff Festival of Science*



This beautiful marigold at the Arboretum was huge so I had to take a photo of it. *From the 2003 Flagstaff Festival of Science*



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PHOENIX ASTRONOMICAL SOCIETY

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PAStimes
Jan. 2004 Issue

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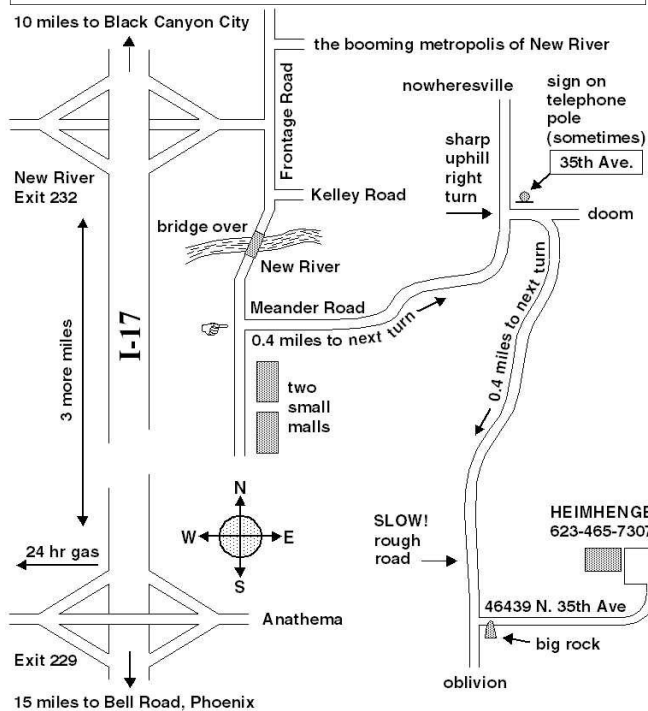
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The way to Heimhenge



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