And the winner is....we don't have one. The top vote-getter was Sidereal Times - but we then discovered that this is the newsletter title of the Albuquerque Astronomical Association. So, in deference to our colleagues in Albuquerque, we have removed it from the list. So - sigh - we'll have a run-off vote for the runners-up. The other top vote-getters are: Diffractions, First Light, Photon Phix, and Averted Vision.

Thanks to all who suggested titles and sent in their votes. Now - one more time!!!!

PATHFINDER LANDS!

Of course, the big news of the past week has been Mars PathFinder. Since landing on Mars on July 4, PathFinder, and it's accompanying rover, Sojourner, have been sending steady streams of images and data back to the Jet Propulsion Laboratory. A preliminary analysis of Pathfinder web sites show a steady stream of 45 million (!) hits per day since the July 4 landing. Sites have taken an estimated 265 million hits as of midnight, July 9, PDT. The primary PathFinder site, http://mpfwww.jpl.nasa.gov has 17 reflectors around the world.

There are several sites to view images sent by PathFinder. One is http://www.nss.org/mars/images.html. There are also several sites to view live video from PathFinder. One is http://www-news.uchicago.edu/mars/comingsoon.html This site has been extremely difficult to access, due to heavy traffic. Another is http://www.spacezone.com. This requires a plug-in, vdo.exe, that you can download at the site. So far at least, it has been fairly accessible. There are also live audio presentations at this site - be sure to check their schedule at the bottom of the page. They've had live audio from the Shuttle (STS-94) also. A third option is CNN Live Video, at http://cnn.com/TECH/9706/pathfinder/multiplex/live/nasatv.html However, be warned! The plug-in needed to view video at this site will NOT work with Netscape 4.0x or IE 4.0! They promise an update to the plug-in for these newer browsers soon - but "soon" in this case might not be soon enough.

ASTRONOMY CAMP AT THE UNIVERSITY OF ARIZONA

By _DG_

All the campers met at the University of Arizona, where good-bye's and hello's were said. After a quick introduction to each other, the 32 campers filled the vans and cars for a lengthy trip to the summit of Mt. Lemmon. When near the summit, we pulled over for a picnic, to allow us to fill our stomachs and become more acquainted with each other. After the last bite of food was consumed, the counselors ambushed us with pine cones. After a dirty fight, everyone piled back into the vehicles for the remaining 20 minute drive.

At the arrival of the summit, several telescope domes and dorms were visible. We quickly grabbed our luggage and hauled it into the dorms, which were quite nice, in hopes of getting a full night of observing in. Yet again, we all piled back into the vehicles for a short 10 minute ride to Mt. Bigelow, home of the 61" telescope.

When we arrived at the 61" telescope, we stepped out of the van and looked up. The stars were magnificent and the Milky Way was as bright as clouds! These are truly dark skies. Once we were all inside the dome, we sat down and looked up as Don, our camp leader, opened the telescope dome to music from the "Phantom of

the Opera". The rest of the night was visual astronomy through the 61", the C-8, and a pair of 11 x 80's that a camper had brought along.

Everyone was completely exhausted the next morning from jet lag and staying up so late the night before. After consuming breakfast, which was made by a professional cook, we started our lectures. These lectures are not really classroom-like; they are more open. The lectures throughout the week were infrared, extra-solar planets, astronomy basics, galaxy formation, spectral analysis, CCD cameras, low surface galaxies, etc. Most of these talks were covered by professionals in that specific field, who came up to talk to us for the day.

We were allowed to form teams and do research projects for the remaining observing nights. Some groups formed were planetary nebula ansae (that's me), Kuiper belt objects (partially me), pre-main sequence stars (a.k.a. PMS stars, and partially me), Jupiter eclipse, and an asteroid group, along with several others. The day before we left, our groups made a quick presentation to the rest of the fellow campers, to show our data and our conclusions. The repeated quote of that day was "We didn't have enough scope time, or analyzing time, or both."

In our free time, which was rare, many of us took several hikes or played a couple games of pool. Some other fun things our group did was dissect disposable cameras, take apart an old photometer, play with the liquid nigrogen cannon, and make ice cream using liquid nitrogen. Everyday at camp was extremely tiring, both mentally and physically. Running on 0 to 4 hours of sleep a night for 7 days is exhausting. Camp was extremely fun, despite the lack of sleep, and I am looking forward to going back next year!

THE 1994 ANNULAR ECLIPSE - A UNIQUE APPROACH TO SOLAR PHOTOGRAPHY

By Dave_J

These are images I took during the May 1994 annular eclipse with a simple point-and-shoot camera. I set up my 60mm refractor for projecting the Sun's image onto a sheet of paper that was attached to a clipboard. The clipboard was set up on top of a 2-foot ladder, to get it to the proper height for projection. I used my 25mm Plossl eyepiece with the scope, which gave a magnification of 36x, and this turned out to be good for getting the entire solar image in the projection.

The camera I used was nothing more than a simple point-and-shoot 35mm camera that I had gotten from Walgreen's some time well before the eclipse. I originally came up with the idea of doing this after taking a test picture of the solar projection several months before the eclipse occurred, which showed me that it was possible to do this successfully. I used a higher-speed film (ISO 400) to help ensure I would get sufficient light from the projection.

After setting up the scope and getting the projection properly positioned on the paper, I stepped back past the minimum distance for focus for the camera. In this case, minimum distance was 4 feet. I took the pictures from about 5 feet back, framed the picture and took it. Unfortunately, the camera jammed just before maximum eclipse, so I was able to only get pictures up to about 15 minutes before maximum.

I don't know how well this would work for a total eclipse, but with sufficiently sensitive film, I would think that projecting the fully-eclipsed Sun might have

enough light to be recorded. Since this only takes a few seconds to try, it might be an interesting experiment for future total eclipses.

This might even work better with an SLR, since the photographer would have more control over the shutter speed and aperture, so he/she could capture more light from a fainter image. The camera I used had either a 1/150 or 1/250 second shutter speed, which was not adjustable. It also might help to have a camera that allows you to disable the flash, so that you don't wash out the projected image.

I'm quite pleased with the results I got from this experiment. With no hassle, a little ingenuity and a bit of luck, I have a very memorable record of that eclipse, and now a method for record future eclipses as well.

OBSERVATIONS

JUPITER

By Todd Gross

In and out of the cirrus clouds, I had a good look at Jupiter this morning (June 25) for about 1/2 hour. Seeing was pretty decent, at least 7 out of 10, nearly 8 I'd say, but the thin cirrus deck hurt the view at times. Nevertheless, this was one incredible view, on the most active side of the planet.

The 8" SCT was marvelous with a Televue binoviewer; the 16" reflector even better when the optics and sky settled (which took too long for great results, as I had to go to work). I was viewing from 175 - 300x. Here are some sketchy details:

The South Polar Region was dusky. The STB was extremely active and well-definied, more than Ihave ever seen. At first glance, I saw three dark knots spread evenly near the meridian. On a second look, I realized these were the bordering areas of three very clearly defined white ovals.

The SEB was really wacky. The Great Red Spot, looking pink, punched about 2/3 of the way through the belt, and seemed to be leaning slightly - it's egglike shape not quite "square" with the belt. The GRS was well past the meridian. It had some variation in shade inside, with a darker spot close to the center, offset towards the south, following side.

From just above (just north) of the GRS, and extended toward the following side for almost the entire width of the planet through the SEB was what appeared to be a long white streak, at first glance looking like a break in the SEB. I reported seeing this feature in an earlier post, as I had seen about 1/2 of it, (looking like a spike) after the GRS had already gone by, a few days ago. As I had guessed, there was a series of white ovals making up this long whitish feature. They were hard to see at first, and became more clear with time, with at least three distinct white ovals almost back to back just about touching the following side of the GRS and extending towards the meridian. I am not very well versed in these white ovals; perhaps someone can tell me if such a long slew of these is normal, or if I am seeing something else.

The Equator again had a broken band that looked like Morse code, running across just about the entire width of the planet; previous days' views showed this in a couple of separate areas, but the way the planet was facing, those areas were seen today simultaneously, so it looked more continuous.

The two festoons I have been reporting on of late were both in view. They were on either side of the GRS by some 30 degrees or so (roughly). The larger one on the preceding side was roughly pointing towards the GRS, extending down from the NEB and turning in the direction of the following side. The second one was smaller, and punched straight up to about the equator, on the following side of the GRS, and was close to the meridian at 0815 GMT.

At 0815 GMT a moon popped out from behind the following, north limb.

The NEB was thick, rich and varied. I didn't notice this time, but previously I noted that the festoons were coming all the way up from darker areas from within the NEB, not just from the south side of the NEB.

The NTB was thin and continuous, and intricate, with a particularly dark knot seen almost at the same longitude as the GRS, halfway to the preceding side.

The NNTB was thin and at this longitude fairly close to the NTB, compared to the other side of the planet. It was plainly seen except for a dusky area near the meridian where I almost lost it.

The NPR was not as dark as the SPR. It also showed some indirect sign of structure, or banding.

If seeing had been even better, it may have been true (as claimed by an observer friend of mine last year) that it could have broken up into further minibelts. I really am not sure about this, and would like some feedback as to whether or not this is possible. He claimed to have seen 11 bands on Jupiter early last fall. I can't figure out where! In my report, above, I count 6.

BYTES AND PIECES

The annual star party/hog roast/fireworks extravaganza held at Chiefland, FL, on July 4, was well attended by #sciastro-ites. FireCapt, TPrinty, AstroCady, and Portia made the trip; the event was hosted by BillyD. Observing Thursday night was good; sky clear, and though not real dark, was very steady. Jupiter, thru Jerry Grenade's 25" Dob at 350x, was spectacular. Friday brought rain in the afternoon and cloudy skies that night. We got a preview of Andy Druga's pyrotechnical genius instead; he was saving the BIG SHOW for the following day, which was the day of the hog roast. We also watched CNN as PathFinder landed.

Saturday morning many of us went into town for breakfast - and came back to utter disaster. In our absence, a torrential rain storm packing 70 mph winds blew through the field; although we were rained on in town, the wind out in the observing area just seemed to come out of nowhere. Scopes were tossed all over the field. Jose Torres' LX-200 with CCD camera attached was toppled; the camera wound up in a six-inch puddle of mud. The wind also blew half of his popup camper off. It ripped the awning off another camper's travel trailer, tossed a C-8 onto the ground, blew AstroCady and Portia's little 7" Dob all over the field, and destroyed several of the poles that held up their 8 x 16 canopy, a favorite gathering place for those desiring respite from the hot Florida sun. The four or five people remaining on the field raced frantically around, trying to save everybody's equipment, and just couldn't do it. TPrinty's tent was toppled, as were many others - and just about everybody wound up with bedding and clothing that was soaking wet and muddy. Many of us packed up and left before Ms Piggy was even off the spit - what else are you going to do with a bunch of soaking wet, muddy gear? But we hear the ribs were delicious! BillyD

says that next year, we are moving July 4th to December, so we get better weather! Hey, Billy - did ya save any of the leftovers?

CRAWLING THE WEB

For those of you interested in NEAR, images of the Mathilde fly-by can be found at http://sd-www.jhuapl.edu/NEAR/Mathilde/images.html.

Here is a great amateur astronomy site, called Bite-Sized Astronomy. It has regular descriptions of things astronomical, written particularly for the layman, complete with diagrams and photographs. Past "bites" are archived, too! This site can be found at http://patriot.net/~badastro/bitesize.html. Thanks to Joe3 for both of these sites.

The sci.astro.amateur NewsGroup FAQs can be found at http://www.scs.uiuc.edu/~nash/saafaq.html.

UPCOMING STAR PARTIES

The Northern Sky Astronomical Society at the University of North Dakota, in Grand Forks, is pleased to announce the third annual Northern Prairie Star Fest, to be held under the very dark pristine skies near the North Dakota - Manitoba border on August 1-3, 1997. There is power for telescopes, and also power hook-ups for RVs. Early August weather in North Dakota is typically dry, with relative humidity around 35%, daytime temperatures in the 80s, and nighttime temps in the 50's. Astronomical twilight ends just before midnight because of the northern latitude. This site has virtually no light pollution - the nearest hamlet, Sarles, population 75, is 8 miles away. There will be a barbecue on Saturday evening. For further information, catch Arcturus on the channel or e-mail him at milford@plains.NoDak.edu. Or visit their website at http://www.cs.und.nodak.edu/~dsmith/nsas/recent.html.

This CCD image of Jupiter was taken by NebM42. It was a 13-second exposure, taken through a blue-green filter. The CCD camera used was a Canadian-made model designed especially to be used on Newtonian reflectors. The image was shot thorugh an 8" Orion Dobsonian on a drive platform that has tracking/slewing capabilities. The platform was designed and built by NebM42 andhis father, and took three months to design and build.

NebM42 has used this setup to image other objects as well, including Saturn, M51, and M13. To locate deep-sky objects, he uses Magellan I digital setting circles. We hope to feature some of his other images in future issues of the newsletter.